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ABSTRACT

The Electronic Telecommunications System project was conceived to assist in the integration of telecommunications technologies such as electronic mail into adult and vocational education programs. After identifying and evaluating over 20 vendors and electronic mail systems, the researchers selected the ITT Dialcom system as the subject of a three and one-half month field test that involved a network of 16 sites. During the field test, training was provided dealing with the use of Dialcom as both a training and communication network. Planned exercises were sent via electronic mail to illustrate the applicability of the system as well as to ensure practice in its use. No technical problems were encountered and all computer systems and equipment configurations worked satisfactorily during the field test. Based on an analysis of usage data and participants' comments, the researchers concluded the Dialcom compares favorably with systems used previously and that ADVOCNET (Adult and Vocational Education Network) achieved a high degree of applicability and acceptance in a very short time. (This report, which is intended as a planning and implementation guide for installing electronic mail systems for use by adult and vocational education program improvement agencies, includes a brief report on the methodology and results of the field test, a series of recommendations, project cost figures, and the project training activities.) (MN)

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ADVOCNET

ELECTRONIC TELECOMMUNICATIONS SYSTEM

FINAL REPORT

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May 1984

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FOREWORD

Electronic mail is just one of several new telecommunications technologies that can increase the effectiveness of adult and vocational education program improvement agencies. To assist in the integration of this technology and to provide application expertise, the National Center conducted a designated study for the Office of Adult and Vocational Education (OVAE) on electronic mail systems and networks. Over 20 vendors and systems were identified and evaluated on 29 criteria relative to electronic mail and other telecommunications assessment features. As a result of this evaluation, OVAE selected ITT Dialcom as the system to be field-tested for the ADVOCNET project. The field testing was accomplished over a 4-month time frame, including a network of 16 sites in cooperation with Dialcom and the National Center.

This report is intended as a planning and implementation guide for use by OVAE and the National Center for installing electronic mail as an integral part of day-to-day communications between adult and vocational education program improvement agencies at all levels. It incorporates the current state-of-the-art electronic mail offerings and builds upon previous National Center efforts of computer-based message switching systems developed over the past 3 years.

This project was a broadly based effort incorporating many agencies and individuals. We are particularly indebted to the following for their participation in the field test: John Barlow, Education Information Center Specialist, Mississippi Department of Education; Larry Barnhardt, Researching Coordinating Unit Director, North Dakota State Board for Vocational Education; Lou Chinnaswamy, State Liaison Representative, Wisconsin Board of Vocational, Technical, and Adult Education; Jackie Karotsch, Felicia Barankovich, Mark Cruver, Marketing and Technical Representatives, ITT Dialcom; Dr. Mary Lovell, Education Research Specialist, OVAE; Tim McLaughlin, Liaison Coordinator, Michigan Vocational Education Resource Center; Wanda Monthey, State Liaison Representative, Oregon Department of Vocational Education; John Roth, Liaison Specialist, Alabama State Department of Vocational Education; Moire Coleman, Research Coordinating Unit Director, Vermont Department of Vocational Education; Donald Riecks, Director of the Library, Highline (Washington) Community College; Merle Rudebusch, State Liaison Representative, Nebraska Department of Vocational Education; Mac Stivers, Liaison Coordinator, Kentucky Department Vocational Education; Jack Struck, Executive Director, National Association of State Directors of Vocational Education; Betty Anne Sullivan, Curriculum Disseminator, Northeast Network for Curriculum Coordination; Nona Verloo, Vocational Consultant, California Department of Vocational Education; and, Peggy Zelinko, Manager, Special Publications, American Vocational Education, Arlington, Virginia.

We also appreciate the consulting expertise of Dr. James Rush, President, and David Colombo, Consultant, of JERA Associates for their assistance in the identification phase of the project.

The ADVOCNET project was conducted in the Information Systems Division of the National Center. We wish to thank Carl Oldsen, Project Director, and Yvonne Bergland, Graduate Research Associate, who assisted on the project, and Norman Singer and James Long who provided internal Product Review Evaluations of the final draft. We appreciate the skills of Jean D'Andrea and Judi Gray for preparing the typed materials, and Janet Ray and Brenda Hemming, for providing word processing support. Graphic and printing services were directed by Ernie Spaeth and provided by Sue Tippett. Editing was done by Judy Balogh and Ray Stewart under the supervision of Janet Kiplinger.

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Robert E. Taylor
Executive Director
The National Center for Research
in Vocational Education

EXECUTIVE SUMMARY

The ADVOCNET project identified, evaluated, and field-tested electronic mail systems for their applicability to the needs of adult and vocational education program improvement agencies. Over 20 vendors of electronic mail and related services were evaluated on 29 features and system capabilities. These data, combined with computer and literature searches, information collected by OVAE and NASDVE, system demonstrations, and 3 years of experience in computer-based message switching networks were synthesized and presented to OVAE for consideration and approval. The ITT Dialcom system was selected by OVAE as best meeting the needs of adult and vocational education. The National Center functioned as the systems manager for the field testing with 16 agencies, including State departments of adult and vocational education, a curriculum coordination center, a community college, NASDVE, AVA, and OVAE.

The field test covered a 3 1/2-month period, and included the basic training in system usage, regular group conference calls, and use of Dialcom as both the training and communications network. Planned exercises (Activities 4-6) were sent via electronic mail to illustrate the applicability of the system as well as to ensure practice in its use. No technical problems were encountered and all computer system and equipment configurations worked satisfactorily, or were ameliorated upon presentation of a specific concern.

Analysis of usage data, participants' remarks collected via conference calls, and message traffic revealed a high degree of satisfaction with Dialcom and its responsiveness to the needs of the ADVOCNET project. For the 16 active field-test sites, the average number of sign ons was nine per day with an average of six different users each day. Peak operating times were 8 to 9 a.m. and 11 a.m. to 1 p.m., illustrating system application and practice as members in various time zones checked their electronic mail boxes. During the field-test duration, 56 percent of the sites used Dialcom each day for an average time of 17 minutes. These results compare very favorably with previous system usage and indicate a high degree of ADVOCNET application and acceptance in a very short time frame.

The National Center will proceed to incorporate Dialcom as the OVAE electronic mail system for all adult and vocational education. This systems manager effort will include assistance with sign on procedures and the use of electronic mail features with suggestions of specific adult and vocational education applications, technical support augmented by Dialcom, and the phased introductions of the more sophisticated network services available to provide state-of-the-art telecommunications in carrying out program improvement responsibilities.

INTRODUCTION

The National Center for Research in Vocational Education was asked by the Office of Vocational and Adult Education (OVAE), U S. Department of Education, to conduct a designated study to identify, evaluate, and field-test an electronic mail system for adult and vocational education personnel. The National Center conducted a successful field test of the OVAE selected system, the ITT Dialcom. The primary objectives of the ADVOCNET project were to select and to field-test an electronic telecommunications system.

The purpose of the Electronic Telecommunications System (ADVOCNET) designated study was to identify, select, and field-test a national electronic mail system for use by Federal, State, and local vocational and adult education personnel. In carrying out this study, existing electronic mail entities, including online networks, inhouse software systems, and software brokers, were identified, with system data collected and several demonstrations attended. The resulting data were analyzed in a variety of ways to provide the necessary facts on which system would best meet the needs of vocational and adult education in the years to come.

Information was also provided by the Office of Vocational and Adult Education (OVAE) through the results of a survey entitled State's Need for Services through an Adult and Vocational Education Communications Network. Data collection using this instrument was successful due to the input of the National Association of State Directors of Vocational Education (NASDVE). The primary concern expressed by the respondents was the cost of an electronic mail

network. The major uses were stated as the need to keep current on legislation and regulatory information with the ability to request and respond to information inquiries.

BACKGROUND

Up to the present time, the regular and routine exchange of information between adult and vocational education program improvement agencies has been conducted with the telephone, letters, and face-to-face meetings. However, recent telecommunications advances that are now available at reasonable costs can be incorporated and applied to the daily communication requirements of adult and vocational education. These technologies include teleconferencing, distance learning, satellite transmission of data, electronic mail, and the subject of the ADVOCNET project. The term electronic mail has evolved from computer-based message switching, where a central or host computer ties together dispersed computer terminals or microcomputers, to a central source. The central source is the electronic mailbox that is unlocked by using the terminal as the access device. Electronic mail services are available from a large number of commercial vendors including GTE Telemail, ITT Dialcom, MCI Mail, CompuServe's Infoplex, and the Source.

The National Center has been involved with and has nurtured the development of an electronic mail system for adult and vocational education for the last 3 years, using the message switching system of the Bibliographic Retrieval Service (BRS). This system has evolved to a network of over 50 agencies, and is used to respond to requests for curriculum availability, to return information from searching databases, and to track the receipt of Federal and State administered projects and product descriptions. The success of this effort led to the OVAE funding of the ADVOCNET project to investigate more

sophisticated and powerful electronic mail systems that are responsive to the needs of adult and vocational education. Important criteria that were employed when examining these systems included low-cost operation, the ability to send to multiple addresses, ease of use, and unlimited message lengths. The evaluation procedures that were used by OVAE to select the Dialcom system are described in the methodology section of this paper. Results of this examination reflect the need to bring adult and vocational education agencies into closer contact to share resources, to bring about increased productivity, and to incorporate the latest technology to assist in solving problems of information transfer and dissemination.

METHODOLOGY OF VENDOR SELECTION

Data collected from each vendor, computer searches, trade literature, and demonstrations, together with a knowledge base realized from 2 years of prior experience in electronic mail systems, were arranged on a matrix of 29 cells (see appendix A) encompassing electronic mail, teleconferencing, management systems, information systems, training, and system costs. Twenty-one vendors were displayed across this matrix with notations made for features available from each.

The pricing algorithms employed by the vendors are complex and were not adaptable to easy display on the matrix. Therefore, cost analysis tables (see appendix B) were developed that provide cost-specific data for each vendor. Each vendor has verified these data, which are rapidly changing in today's business environment. In order to present meaningful cost quotations, a hypothetical series of messages was composed. These consisted of (1) a 6-page (11,000 character) regulator-legislative data report, (2) a message (250 characters) to all 50 network sites, and (3) a message (100 characters) to 10 sites. The costs were computed as follows:

Dialcom	$ 64
MCI Mail	$ 62
SpecialNet (Telemail broker)	$109
Telemail	$232

Costs included the charge for a message sent at prime time, applicable monthly or annual fees, minimum length charges, and broadcast delivery.

Examination of the various systems revealed that several vendors were using essentially the same software packages (Dialcom, Telemail, and so forth). To depict this data, a software analysis matrix (see appendix C) was developed to illustrate how each of these packages is presently employed.

Based upon review and study of all documentation coupled with experience in this area, three vendors were identified that seem best qualified to meet the needs of the vocational and adult education community. These are discussed in the order of their recommendation.

Dialcom, in operation since 1978, promotes the use of electronic mail, teleconferencing, and bulletin boards. Its sophisticated software package has been adopted by other telecommunications vendors because of three executive systems: communications, information, and support features. In addition to electronic mail, described by Dialcom as the "hub of automated office systems," their product profile includes telex interface, Electronic Computer Originated Mail (E-COM), linking word processors, electronic conferencing, electronic bulletin board, and online discussion.

A wide variety of news and information sources are available through ITT Dialcom in the form of electronic newswires, electronic financial reports, internal news and information, electronic business library, official airline guide, and a gateway to other databases. Functional applications that aid management include a calendar and phone message system, text processing, automated letter writing, and custom programming projects. Dialcom achieves these features through its modular systems that are structured to accommodate a client's changing needs or expansion.

Technical support is emphasized before, during, and after the Dialcom system is installed. Dialcom presents a base system from which other services can be integrated with communication functions. As a full service vendor, Dialcom is particularly competitive by virtue of charging no monthly minimum to Government accounts and having been selected as electronic mail vendor by other departments within the U.S. Department of Education.

Telemail, established in 1980, features electronic mail, specifically designed bulletin boards, and a broadcasting function. As a management tool, Telemail is designed for ease of use through everyday terminology and non-threatening prompts. Tailored messages encourage freedom of choice and individuality in sending memos, reports, or forms. Security and privacy can be used with any one of the four message classifications: urgent, private, registered, and timed delivery. Each individual subscriber has the option to initiate a paperless file through storage of messages. In addition, distribution of group lists provides an efficient means of sending information to specific departments, locations, project teams, or all employees as a group.

As described here, Telemail's software package, which features user friendliness achieved through self-paced and individualized attention, is utilized by four electronic mail vendors. Telemail, which is a full service vendor offering a variety of services, cannot be competitive on the basis of quoted costs when compared to Dialcom and MCI Mail. Since low to moderate pricing was an often stated objective in the State director's study, we have attached credence to their concerns.

MCI Mail, introduced on 27 September 1983, offers an electronic mail system that delivers quickly, reliably, and at affordable prices. The cost for MCI Mail is very competitive in that no membership fees or minimum monthly

charges are incurred. Speed of transmission is left to the sender who chooses 1 of 4 different delivery options: instant, 4-hour, overnight by noon, or next day via MCI letter. The use of MCI's postal center precludes the necessity of a terminal. Correspondence can be personalized through the use of letterhead and/or signature by a laser printing mechanism. Small communities are encouraged to participate using an 800 toll-free number so that costs are no higher than those found in larger cities. Supported by a packet switching network provided by Bolt, Beranek and Newman (BBN), MCI's electronic mail system maximized flexibility for quick delivery at a lower cost with fewer restrictions than other services. The absence of connect-time charges and monthly service fees makes MCI Mail's "ounce" of 7,500 characters a strong contender as a nationwide electronic mail vendor.

In terms of pure cost of operation, MCI Mail is the low-price vendor in the marketplace, but is also the newest, having been available since September 1983. Two features, bulletin boards and gateways to databases, not available through MCI but provided by Dialcom and Telemail, are extremely useful for vocational and adult education.

For the purposes of this study, although the evidence is persuasive, time and the lack of an existing track record preclude strong support for MCI Mail, whereas Telemail and Dialcom have 4 years and 3 years of operational experience, respectively.

CONCLUSIONS AND RECOMMENDATIONS OF THE VENDOR SELECTION PROCESS

These three vendors are all characterized by ease of operation, wide availability, and current use by Government agencies, professional organizations, and business firms. Careful consideration of the present needs of the vocational and adult education community, vendor services and experience records, and multiyear experience with existing computer-based message switching systems indicate that Dialcom can be responsive and provide state-of-the-art electronic mail technology. Prices and rates are as quoted through 15 November 1983 and are subject to change. In addition, the total number of members that are brought into the new system may result in volume discounts from the vendor or broker.

METHODOLOGY OF FIELD TEST

Introduction

A major objective of this project was to field-test the electronic mail system that was selected by OVAE. When the endorsement of Dialcom as the electronic mail system was received from OVAE, the field test was initiated. Specific objectives of the field test were--

* to determine the availability of equipment that was compatible with the Dialcom system in diverse field sites,
* to test the ease of sign-on procedures for the Dialcom system,
* to develop and implement effective training procedures for the basic Dialcom electronic mail feature, and
* to examine patterns and problems related to the use of the Dialcom system.

In addition to providing basic information about the availability and effectiveness of the Dialcom system for the adult and vocational education community, field-test data also provided information needed to plan and implement full-scale adoption of the system.

Selection of the Field Sites

To provide a realistic setting and obtain practical experience needed to determine the value and usefulness of the Dialcom system, field testing was completed in 16 agencies with a diversity of applications and needs. The 16 agencies included 10 State departments of education, 1 community college, 1 curriculum coordination center, 1 State resource center, the American Vocational Association, the National Association of State Directors of Vocational

Education, the Office of Vocational and Adult Education, and the National Center for Research in Vocational Education. These agencies were selected by virtue of their expressed interest.

Announcements about this field test were made by mail, telephone, and messages delivered through the existing BRS computer-based message switching network. Agencies interested in participating in the field test expressed their interest in a letter that also described the types of computer equipment that they would have available for use during the field test.

The field-test design required the participation of different types of agencies including State departments, professional associations, curriculum coordination centers, and OVAE. These sites provided a population and size diversity, from California as the largest to Vermont as the smallest. This allowed for the integration of an electronic mail system within various size departments and gave indication of the optimum number of mailboxes and or distribution points for full-scale ADVOCNET operation after the field test. This is the basis for recommending a maximum of five mailboxes within each organization, with one person designated as the ADVOCNET coordinator (i.e., that person being the primary contact for messages being sent and received) and system's applications.

Final selections were made from the letters of interest that had been received, and when necessary, additional sites were contacted to ensure representativeness of the field site group. A test site roster was established in December 1983 and is included as a part of this report (see appendix D).

Sign-on Procedures

Once the field-test sites had been selected and had agreed to participate, the first phase of the field test began. A major task during this phase was

to sign field-test sites onto the field-test system. A requirement for participation in the field test was the availability of the necessary telecommunications equipment, including a computer terminal or microcomputer and a modem to communicate with the host system. A review of the types of equipment that were available in the various field-test sites indicates that there was great diversity. ITT Dialcom provided technical materials listing various types of computer terminals and microcomputers and instructions for various settings required for use of the Dialcom system. The National Center staff was able to use these technical materials and easily communicate with the field-test sites about technical matters related to sign on.

Each field-test site also was asked to designate the number of mailboxes that they would need and to identify the names of individuals who would have those mailboxes. The sites selected two to three mailboxes. Each site was asked to appoint a liaison person with the National Center. This was done to ensure the development of the working relationship with the person who would actually be sending and receiving messages. In many instances, this individual was the liaison for the director of the respective agency. In general, mailboxes were assigned to the director, the liaison person, and in some cases, to a designated back-up person.

Once the compatibility of equipment had been established and a roster of individuals to be assigned the mailboxes was received, the National Center staff was able to assign identification numbers to each designated individual and to develop a roster that formed the basis of the online directory of users. Since all costs associated with the field test were funded through the National Center project, there was no need to establish separate accounts for field-test agencies with Dialcom.

Training Provided to the Field-Test Sites

The introduction of the Dialcom system and training in its use was the joint responsibility of the National Center project staff and the Dialcom technical support personnel. Documentation furnished by Dialcom was used to form the basis of six activity lessons to introduce key concepts in using the system. These activities were adapted to form the core of instruction in the use of the Dialcom system. They covered the following topics: logging on and off the system, changing your password, displaying the directory and sending a message, scanning mail, send options, and disposition of mail (see appendix E).

Basic instruction and training in the use of Dialcom was accomplished through the previously mentioned six activity packages. These were distributed during the February through April time period, with the first three being sent by U.S. mail and the last three by electronic mail. The latter method was employed as users gained proficiency and experience with the system. By using the acknowledgement command (AR), National Center staff members were also able to measure the progress of users in picking up their messages. Several accommodations were made when certain sites experienced equipment problems that required forwarding these three remaining activities by U.S. mail.

Discussions of system applications, timelines, operational concerns, and information sharing were greatly facilitated by five conference calls (see appendix F) to all test site participants. The linkage was coordinated by CONNEX International, a teleconferencing firm identified in the first part of the review process. CONNEX provided a state-of-the-art teleconferencing

technique to bring together all participants for the sharing of common concerns and the exchange of data useful in conducting the field test.

Each conference call was preceded by the mailing (postal or electronic) of an agenda 10 days prior to the scheduled date. On the selected date, each member called a previously announced number and participants were "held" until all were online. CONNEX then conducted a roll call to ensure voice quality and to denote participants by name and location. The conference was then turned over to project staff who conducted the session according to the predetermined agenda. The excellent success of the field test is attributed in large measure to the use of this telecommunications technique. Calls averaged 35 minutes in length and enabled participants and National Center staff to develop a sense of community and cohesiveness that otherwise could not have been achieved, except by expensive and time-consuming regional training meetings, which in retrospect would not have been nearly as effective.

The level of message traffic and the content of the messages gradually increased as users became more comfortable and proficient with Dialcom. These performance standards also indicated an increased level of sophistication gained by the participants Further evidence includes requests for enhanced documentation, instruction on the integration of microcomputers to compose messages offline and then be online only to transmit, and tips on how to use the system in a more efficient manner (i.e., the development of a ADVOCNET user's group).

Use of the System during the Field-Test

The field test was launched in February 1984. Because the field-test period was short and because it was recommended by the Dialcom staff, major use focused on the electronic mail feature of the Dialcom system. It is

important to note the Dialcom has a number of other features that are available to users and that most of these features would be useful to State departments of adult and vocational education.

Although the design of the field test did not include specific data collections procedures, a variety of sources of information were identified and monitored. These included statistical information available through the Dialcom billing system and statistical reports built into the system itself, recording of specific requests for information from field-test sites, comments made by the field-test sites during the telephone conference calls, and content of messages transmitted through the National Center by the field-test sites via the Dialcom system.

Summary

The field test provided an opportunity to confirm the feasibility of using Dialcom for the ADVOCNET system, and provided important information for designing strategies to increase the adoption of ADVOCNET by the adult and vocational education communities Specifically, the field test provided the opportunity to test sign-on procedures, to develop and test training procedures, and to monitor use patterns. The next section of this paper provides a summary of the results of the field test.

RESULTS OF THE FIELD TEST

The field test of the Dialcom electronic mail system for ADVOCNET provided information about sign-on and training procedures and about patterns of use. It also provided insights that are helpful in designing full-scale adoption of Dialcom ADVOCNET system. Since this was not a formal evaluation study using data collections procedures, informal information and comments were collected. Sources of information during the field test included comments made in individual and conference phone conversations, input sent via the electronic mail system, and standard statistical information available through the Dialcom system.

Results Related to Sign-on Procedures

The first important question addressed during the field test was: Do agencies have the necessary telecommunications equipment and does Dialcom operate effectively on diverse types of equipment? All of the field-test sites had telecommunications equipment that enabled them to participate in the Dialcom system. Equipment varied greatly across sites and included both computer terminals and microcomputers. The Dialcom technical materials provided clear instructions for required switch settings on different types of computer terminals and microcomputers. There were no unusual difficulties encountered in initiating the use of telecommunications equipment with Dialcom.

In most cases, National Center staff was able to respond to questions using Dialcom technical materials. On three occasions, it was necessary to request specific technical assistance from the Dialcom technical staff. In

those cases, information that allowed effective sign-on to the system was provided.

Another question that was addressed during the field test was: Could the National Center, functioning as systems manager, facilitate the use of sign-on to the Dialcom system? The National Center staff requested each field-test site to submit the names of individuals who should be assigned mailboxes on the system. Each site complied by submitting two to three names to the National Center. Using this information, the National Center was able to assign identification numbers and to generate an online directory (see appendix G) of system users. Throughout the entire sign-on process, the systems manager concept functioned smoothly. It appears to be helpful to have a central systems manager as the main point of contact, and to use Dialcom technical assistance as required. This is a model that is advocated by Dialcom and that has been found to be effective in other electronic mail applications.

Results Related to Training

Throughout the course of the field test, three major training strategies were employed. First, each field-test site received a set of Dialcom technical and training materials. In addition to these comprehensive materials, the National Center staff developed six learning activities that were designed to be concise, easy-to-follow summaries of the basic commands required to use the electronic mail function of the Dialcom system. Finally, periodic conference calls were conducted that allowed the field-test site participants to ask questions and to interact with National Center and Dialcom staffs.

When questioned, field-test participants reacted positively to the Dialcom materials. They felt they were high quality and that they presented a large quantity of relevant information. As one participant summarized, "Dialcom has

developed an excellent manual." Participants also rated the activity packages developed by the National Center highly. The purpose of developing these additional packages was to provide elementary, concise information that allows users to learn quickly the basic functions required to use the electronic mail function

Now that these activities have been developed, they can be stored online for easy reference by users during the implementation stage. The field-test participants rated the learning activity packages as being very high on the dimensions of content, format, and organization. The specific comments related to the activity packages included: "activities were well organized and concise" and "well thought out and easy to follow." Some participants suggested that more learning activities packages were needed and that it would be helpful to have all of the packages available immediately upon system sign on. It appears that the learning acitvity packages provide a concise, quick reference guide to various Dialcom features that are a useful supplement to the basic Dialcom manual.

Conference calls were used as a way of coordinating the various sites throughout the field test. The purpose of the calls was to answer specific questions that participants had and to share the various applications the participants were making of the Dialcom system. Participants expressed the opinion that the conference calls were well organized, that the right number of calls had been conducted, and that the CONNEX linkage facility used for the conference calls was of high quality. In general, participants felt that the conference calls were very informative, but felt an alternative would have been to send questions and answers through the Dialcom electronic mail system directly. It is interesting to note that there is some evidence that system

use tended to increase immediately after the conference calls. This would indicate that the calls had a motivational function and resolved problems that had been inhibiting use of the system.

Research on the use of telecommunications for distance education stresses the importance of maintaining personal contact to increase student retention. This is a factor that should also be considered in an electronic mail system. As systems manager, the National Center should be sensitive to the need to respond to questions and problems, and to provide system participants with the opportunity to share information about the application they are making of the system.

Results Related to Use of the System

In general, the field-test participants viewed participation as a positive experience. Some participants remarked that it would have been helpful for the field test to extend over a longer period of time so that they would have more opportunity to learn additional features and to develop specific applications of the electronic mail for their agencies. There was also the feeling that it would have been more helpful to have had more field-test sites; the traffic on the system would have been higher and the agencies would have had the potential to communicate with a greater number of other users. Both of these comments reflect the necessary limitations of the field tests and speak favorably for positive acceptance of full-scale, long-term use of Dialcom for the ADVOCNET system. Participants expressed the feeling that both the National Center and the Dialcom staffs have been cooperative and helpful throughout the field test.

The National Center staff asked the field-test participants to rate the usefulness of the Dialcom system along the following dimensions: (1) ease of

learning, (2) ease of use, (3) system reliability, (4) technical support, and (5) overall satisfaction. In general, participants felt that it was easy to learn to use the Dialcom system. Slightly lower but high attitudes were expressed toward the ease of use of the system. There were also generally high responses related to the category of system reliability. It may be that the responses related to ease of use and system reliability were slightly lower because participants need a reasonable length of time to feel comfortable with using the system, particularly the commands. In no case did participants rate ease of use and system reliability as low.

Uniformly high marks were given for the area of technical support, indicating that the combination of Dialcom and the National Center's technical materials, the National Center's systems manager staff, and Dialcom's technical staff provide a high-quality technical support system. Participants consistently rated their overall satisfaction with the Dialcom application for ADVOCNET as being high. Sample responses were, "it was a pleasure to be involved in the field test," "after early frustrations, it proved to be a very workable system", and "very good effort." Perhaps one participant gave the clearest signal with the comment, "Go with it!"

During the latter part of the field-testing phase, several sites developed specific applications of use based upon special needs. For example, the Michigan Vocational Education Resource Center designed a survey that was circulated to each test site requesting information on the availability of computer software for vocational education. Highline Community College fashioned a similar instrument to collect data concerning the courses of study for selected curriculum materials.

The Northeast Network for Curriculum Coordination in Vocational Education presented a report about ADVOCNET to its regional meeting in March and discussed specific applications to their organization. A National Center representative introduced information about ADVOCNET to participants at the April joint meeting of the National Research Coordinating Unit Association and the East Central Network for Curriculum Coordination in Norfolk, Va, and to the Directors' Council of The National Network for Curriculum Coordination in Vocational and Technical Education at their April meeting in Washington, DC.

The American Vocational Association interfaced its microcomputer with the system so staff could compose messages in an offline mode, then connect to ADVOCNET for transmittal. Many of the sites stored messages for future reference and use. These adaptations and activities illustrate the versatility and variety of this electronic mail system.

Another type of information that provides a clearer understanding of the use of the ADVOCNET system is the usage statistics that are available directly from Dialcom. The Dialcom system has the capacity to tally use data and to provide usage reports. An analysis of these reports during the field test period indicated the following:

1. Average numbers of sign ons per day: 9

2. Average number of different users per day: 6

3. Average length of each session: 17 minutes, or $3.74 average cost at $13.00 per hour including telecommunications. (These have varied from 1 to 82 minutes.)

4. The peak operating hours or "usage windows" are 8 to 9 a.m. and 11 a.m. to 1 p.m., with the heaviest volume during the latter period This illustrates early morning checking for messages, followed by the western time zone members coming online.

5. Given 16 active members, ADVOCNET averages 37 percent participation by all users each day, with 56 percent of those members signing on in an average day.

6. These data reveal a high measure of use for a beginning system when compared to the formative stages of the earlier computer-based message networks. Average use per member per day was less than 3 minutes for a 40 member system.

Summary of Results

The field test was successful, and information received during the field test supported the decision to continue using Dialcom for the ADVOCNET system. The diversity of telecommunications equipment used in the field-test sites created no major problems. The National Center, acting as systems manager, was easily able to help the field test sites sign on, and establish identification numbers and an online directory. The Dialcom technical manual and the learning activities developed by the National Center provided a viable training package for the field-test participants. The positive reactions to the telephone conference calls suggest that some type of ongoing opportunity for answering questions and for sharing applications is important to the success of the system.

Participants highly rated the usefulness of the Dialcom system. Usage reports and volume of message traffic indicated an eagerness to experiment with and learn to use the system, even though usage was not as high as it would have been if a larger number of sites were on the system and if participants had had a longer time to use the system. By the end of the field-test period, several agencies that participated were beginning to develop specialized applications that were particularly useful to the agency and to share these applications with other field-test sites.

CONCLUSIONS AND RECOMMENDATIONS

The ADVOCNET project has shown that electronic mail has an important role in adult and vocational education telecommunications. The successful field test of the OVAE selected Dialcom system among 16 sites has shown it to be technically competent, sophisticated, and flexible to the varying needs and conditions. OVAE's endorsement and strong commitment to electronic mail is seen as the springbroad to its integration within all program improvement agencies in adult and vocational education.

This plan is viewed as a further expansion of established message switching systems and online newletters that have been employed over the past 2 years. The selection of Dialcom brings about enhanced features and sophistication that were deemed desirable and necessary in the State directors' surveys and in the evaluation of system features in the selection phase.

Based on the results of the field test, the following recommendations are made to support the adoption of ADVOCNET as the electronic mail system for adult and vocational education.

RECOMMENDATION 1: The endorsement and high-level use of ADVOCNET by the Office of Vocational and Adult Education (OVAE) is essential to the success of the system.

The endorsement of Dialcom as the electronic mail system for ADVOCNET by OVAE is an important step. Endorsement of the system and the use of Federal funds for equipment and usage time should stimulate the rapid expansion of the ADVOCNET system. OVAE is considering a variety of applications of the ADVOCNET system. Rapid implementation of these applications will be important

since the field test indicates that frequent use is crucial to learning to use the system effectively.

Arrangements have been secured with ITT Dialcom to guarantee that State departments and local districts, when using Federal funds, will be eligible for the ITT Dialcom general services administration contract rates. These rates are considerably lower than Dialcom commercial rates and do not include monthly minimums for use of the system. This favorable pricing structure should also help to stimulate the use of the Dialcom system.

RECOMMENDATION 2: The National Center should continue to function as the systems manager for the ADVOCNET system.

ITT Dialcom strongly recommends that a systems manager be designated to support the marketing, sign-up, training, and use of the ADVOCNET system. As systems manager, the National Center would coordinate the solicitation of new members, assign passwords, and coordinate assistance in the use of electronic mail and suggest system applications. Dialcom marketing support representatives should be available either on-site or through conference calls to handle technical questions concerning the system. This expanded effort could also draw upon the positive experiences from test site personnel to provide assurances to their fellow participants of the usefulness of the system.

RECOMMENDATION 3: As systems manager, the National Center should develop and implement sign-up procedures for the ADVOCNET system.

The National Center should develop application procedures and manage the ADVOCNET sign-up process. A simple application form has been developed that allows agencies who want to join ADVOCNET to provide the necessary information for sign up easily. This application form can be sent to the National Center, which would then assign identification numbers and submit appropriate

information to ITT Dialcom so that each participating agency can establish an account. The National Center staff could also provide consultation to each agency to help determine the number of mailboxes that are required to serve the needs of the agencies. As a final step in the sign-on process, the National Center could be available to help the agency conduct a test of the Dialcom system to be sure that the agencies' telecommunications equipment is functioning properly and that key personnel understand the basic sign-on procedures.

RECOMMENDATION 4: The training procedures used in the field test should be continued during the full-scale adoption period.

Training procedures used during the field test included the Dialcom manual and the six learning activites that have been developed by the National Center. The learning activities should be put online so that all new users can access the activities to learn various commands related to the electronic mail system. If these learning activities are online, the National Center, as systems manager, could alert new ADVOCNET participants to their availability and could answer questions, either by phone or by electronic mail messages.

Telephone conference calls were an important aspect of the field test. During the full-scale adoption stage, the online discussion capacity of the Dialcom system might be substituted for the Connex conference calls. Using this capacity, it would be possible for the National Center to conference with small groups of participants. The full capacity of the Dialcom system should be explored to enable ongoing working and conferencing. This would be important since evidence from the field test suggests that frequent contact with the systems manager and with other agencies using the system to share problems and applications effectively stimulates increased use of the system.

RECOMMENDATION 5: A systematic marketing plan should be developed and implemented to ensure full participation of the adult and vocational education communities in the system.

The goal for the ADVOCNET system should be to link various parts of the adult and vocational education communities, including State departments of education, local school districts, university training programs, professional associations, private sector groups, and research and development centers. The potential is large. The SPECIALNET system for special education currently has 1,500 mailboxes. Adult and vocational education should have a similar capacity. To ensure orderly development of the ADVOCNET system, it is recommended that marketing and sign-up proceed in phases.

The first phase of marketing has already begun with the mailing of materials by OVAE to State directors of adult education, State directors of vocational education, State advisory councils for vocational education, the National Advisory Council for Vocational Education, and the National Advisory Council for Adult Education. It is suggested that the curriculum coordination centers be added to this first marketing phase. The initial sign-up of these various groups will provide a strong basic network. The National Center, as systems manager, would conduct a follow-up to all of these agencies soon after the OVAE mailing is completed. During discussions related to sign-on for the system, the National Center would work with each State agency to identify important subgroups within the agency that should be linked into the system. These subgroups might include directors of research coordinating units, State liaison representatives, staff with responsibility for personnel development, staff with responsibility for administering Federal Section 310 monies for adult education, and individuals with responsibility for postsecondary technical and vocational education. The National Center would move quickly to

sign on this first-phase marketing group, to provide basic training, and to establish procedures for continued assistance and interaction, thus promoting early high-level use of the system.

Once sign-up and basic training have been accomplished with groups in the first phase of marketing, the second phase of the marketing plan should be initiated. In general, groups contacted during phase two of the marketing plan would include university departments of teacher education for adult and vocational education, local school district directors of adult and vocational education, adult and vocational education professional associations, specialized networks within adult and vocational education (e.g., the Coalition for Adult Literacy), private sector groups with an interest in adult and vocational education, and research and development agencies in the area of adult and vocational education. Finally, the National Research Coordinating Unit Association and The National Network for Curriculum Coordination in Vocational Education are planning with National Center Staff to include ADVOCNET training in the agendae for their respective national meetings in 1984 and 1985. Exhibit 1 represents an overview of possible ADVOCNET marketing groups.

RECOMMENDATION 6: Groups belonging to ADVOCNET should be encouraged to feel a sense of ownership of the system and to use the system capabilities for networking and sharing.

OVAE should provide leadership and encourage the adult and vocational education communities to participate in ADVOCNET; the National Center would serve as systems manager to provide coordinating, training, and technical assistance; and ITT Dialcom should provide assistance on technical matters and supply technical materials related to the system. As the system grows, various groups within the adult and vocational education community would be encouraged to feel a sense of ownership of the system. Dialcom is a powerful system that

Vocational Education

1. State directors of vocational education Phase I
2. Curriculum coordination centers
3. Research coordinating units Phase I
4. State liaison representatives Phase I
5. State vocational advisory councils Phase I
6. Postsecondary alliance
7. Directors of postsecondary technical education
8. University vocational education departments
9. Large city vocational education directors
10. Vocational education professional organizations
11. NOICC-SOICC network

Adult Education

1. State directors of adult education Phase I
2. University adult education departments
3. Large city adult education departments
4. American Society for Training and Development
5. American Association of Community and Junior Colleges
6. American Association for Adult and Continuing Education
7. Coalition of Adult Education Organizations
8. National Volunteer Network
9. Competency-Based Adult Education Network
10. Network of Adult Education Programs Serving the Disabled
11. Adult Literacy Intiative
12. Clearinghouse on Adult Education
13. State GED coordinators

Exhibit 1. ADVOCNET External Marketing Groups

can facilitate networking among various groups. For example, groups can establish their own bulletin boards and electronic newsletters to facilitate communication and dissemination of information. Dialcom also has a online conferencing capability that would allow various groups to coordinate activities and conduct business. There is also evidence to suggest specific members of the system will develop creative applications and uses of the system that meet their own special needs. These applications should be shared with others on the system who might have similar needs. The various features of the system and their uses in networking and information sharing need to be clearly communicated to participants, and efforts to form specialized networks within the system should be encouraged.

OVAE staff members, as they discuss Dialcom with various groups, should describe its capabilities for networking and encourage groups to develop networking activities. The National Center would develop application programs that describe the networking capabilities of the ADVOCNET system and conduct training for various groups that are interested in establishing networks. As various groups begin to develop networking activities on the system, they can become consultants to other groups who would like to develop similar types of activities. All of these strategies will be important to developing full utilization of the system.

Summary of Recommendations

The ultimate success of the ADVOCNET system will rely on the involvement and interest of many individuals and groups. OVAE can provide leadership by endorsing the system and encouraging various members of the adult and vocational education community to participate in the system. The National Center could serve as systems manager and conduct a program of activities including

marketing, sign-on, training, and ongoing technical assistance to support the development and coordination of the ADVOCNET system. Ultimately, the success of the system will depend on the extent to which various groups within the adult and vocational education community feel ownership of the system. As with any innovation, adoption and use of ADVOCNET will depend on the ease with which participating agencies are able to sign-on and use the system, to view ADVOCNET as a cost-effective communication vehicle, and to develop a variety of applications that result in the use of ADVOCNET becoming an important communication behavior. The field test supports the notion that the use of Dialcom for ADVOCNET system is feasible and that Dialcom provides considerable power and flexibility as a telecommunications mode. Following the recommendations that have been made in this section would make the ADVOCNET system a reality.

APPENDICES

Appendix A Matrix of Electronic Mail Vendors

TELECOMMUNICATIONS PROJECT

Company Name	System Name	Address	Phone Number	Contact Person(s)	Access Mode				Electronic Mail						
					Telenet	Tymnet	Uninet	Other	Broadcast Delivery	Security	Character Limitation *	Directory of Users	Hotline Assistance	Special Equipment *	Certified/ Registered Mail
ADP Autonet	Auto Mail	175 Jackson Plaza Ann Arbor, MI 48706	(313) 769-6800	Valerie Hawksley				X	X	X		X	X		X
Association for Educational Communications and Technology	TechNet	1126 Sixteenth Street, NW Washington, DC 20036	(202) 466-4780	Cheryl Garnette	X	X		X	X				X		
AT&T Advanced Information Systems	System 85 EDC (Electronic Document Comm.)	Headquarters Plaza-East Tower One Speedwell Avenue Morristown, NJ 07960	(201) 898-2000	Renee Levine				X		X	X	X		X	X
BBN Computer Corporation	Infomail	33 Moulton Street Cambridge, MA 02238	(617) 497-2800	Donna S. Cowan				X	X	X		X	X	X	X
Bibliographic Retrieval Service (BRS)	MSGS	1200 Route 7 Latham, NY 12110	(800) 833-4707	Michael Kramin	X	X	X			X	X	X	X		
Compuserve	Infoplex	One Capitol South Suite 380 175 South Third Street Columbus, OH 43215	(614) 224-3113	Russ Queen	X	X		X	X	X	X		X		

* COST SENSITIVE

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ADVOC-NET

			Teleconferencing		Management Systems					Information Systems				Training	System Costs	
Filing/ Storage	Forwarding	Telex interface	Electronic Teleconf.	On-line Discussion	Bulletin Board	Calendar System	Text/Word Processing	Custom Database Mgmt.	Gateway to Databases	Electronic Publishing	Electronic Library References	Up-to-the-Minute News	Airline/ Travel Guides	Available	Membership	Usage
X	X	X			X	X	X							X		X
X			X	X	X		X		X			X		X	X	
X	X					X	X	X		X				X		
X	X	X					X	X		X	X			X		
					X		X	X	X					X	X	X
X	X	X			X	X	X	X	X		X	X	X	X		X

1-B

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Company Name	System Name	Address	Phone Number	Contact Person(s)	Access Mode				Electronic Mail						
					Telenet	Tymnet	Autodin	Other	Broadcast Delivery	Security	Character Limitation *	Directory of Users	Hotline Assistance	Special Equipment *	Certified/ Registered Mail
Computer Corporation of America	Comet	999 Summer Street Suite 200 Stanford, CT 06905	(203) 327-4023	Frank Gaderick	X	X		X	X			X		X	X
Digital Equipment Corporation	DECmail	6400 East Broad Street Columbus, OH 43213	(614) 868-1900	John C. Ryan				X	X			X			
Educom	Edunet	P.O. Box 364 Princeton, NJ 08540	(609) 443-8603	Michael J. D'Amore	X	X			X	X		X	X		
EDUCOM/EDUNET	Mailnet	P.O. Box 364 Princeton, NJ 08540	(609) 734-1881	Elizabeth Kilcoyne	X	X			X	X	X	X			
GTE Telenet Communications Corporation	Telemail	8229 Boone Blvd. Vienna, VA 22180	(703) 442-1360	James E. Wells	X				X	X	X	X	X		X
ITT Dialcom, Inc.	Dialcom	DIALCOM International 600 Maryland Avenue, SW Suite 455 Washington, DC 20024	(202) 488-0550	Mark Cruver	X	X		X	X	X			X		

* COST SENSITIVE

ADVOC-NET

			Teleconferencing		Management Systems					Information Systems				Training	System Costs	
Filing/ Storage	Forward-ing	Telex Interface	Electronic Teleconf.	On-line Discussion	Bulletin Board	Calendar System	Text/Word Processing	Custom Database Mgmt.	Gateway to Databases	Electronic Publishing	Electronic Library References	Up-to-the-Minute News	Airline/ Travel Guides	Available	Member-ship	Usage
X	X						X	X						X	X	X
X						X	X	X	X					X		X
X	X	X	X		X		X	X	X		X	X		X	X	X
X							X	X	X						X	X
X	X	X			X		X	X	X			X		X		X
X	X	X	X	X	X	X	X	X	X	X	X	X	X	X		

2-B

TELECOMMUNICATIONS PROJECT

Company Name	System Name	Address	Phone Number	Contact Person(s)	Access Mode				Electronic Mall						
					Telenet	Tymnet	SBS	Other	Broadcast Delivery	Security	Character Limitation *	Directory of Users	Hotline Assistance	Special Equipment *	Certified/ Registered Mail
JMK International	Edutech (Telemall)	7617 Little River Turnpike Annadale, VA 20023	(703) 750-0500	Susan Elting	X	X		X	X	X		X			
MCI	MCI Mail	2000 M Street, NW Washington, DC 20036	(202) 293-4255 (800) MCI-2255	Marilyn Mouly				X	X		X	X			X
National School Public Relations Association	ED-NET	1801 North Moore Street Arlington, VA 22209	(703) 528-5840 (614) 891-6466*	Molly Weinger Ann Fauley* (Ohio Link)	X	X			X			X			
National Systems Management, Inc.	SpecialNet	430 M Street, SW Suite N304 Washington, DC 20024	(202) 922-7953	Gary D. Snodgrass	X				X	X	X	X	X		X
New Jersey Institute of Technology	"EIES"	323 High Street Newark, NJ 07102	(201) 645-5503	Murray Turoff (Anita Grazano)	X			X	X	X		X			X
Participation Systems, Inc.	PARTICIPATE	50 Cross Street Winchester, MA 01890	(617) 729-1976	David P. Richtmann	X	X		X	X	X		X	X		

* COST SENSITIVE

ADHOC-NET

			Teleconferencing		Management Systems					Information Systems				Training	System Costs	
Filing/ Storage	Forward- ing	Telex Interface	Electronic Teleconf.	On-line Discussion	Bulletin Board	Calendar System	Text/Word Processing	Custom Database Mgmt.	Gateway to Databases	Electronic Publishing	Electronic Library References	Up-to- the- Minute News	Airline/ Travel Guides	Available	Member- ship	Usage
X	X	X			X		X	X	X			X		X	X	X
X		X					X				X	X				X
	X			X	X			X	X		X	X		X	X	
X	X	X			X		X	X	X			X		X	X	
X	X		X	X	X		X	X	X	X	X			X	X	X
X	X		X	X	X		X	X	X	X		X	X	X	X	X

Company Name	System Name	Address	Phone Number	Contact Person(s)	Access Mode				Electronic Mail						
					Telenet	Tymnet	Uninet	Other	Broadcast Delivery	Security	Character Limitation *	Directory of Users	Hotline Assistance	Special Equipment *	Certified/ Registered Mail
Source Telecomputing Corporation	The Source	1616 Anderson Road Mclean, VA 22102	(703) 734-7500 (800) 336-3366	John Accardo	X	X		X	X	X		X	X		
Tymshare	On-Tyme II (Class)	1415 Koll Circle Suite 101 San Jose, CA 95112	(408) 289-1756	Karen Kelly		X			X	X	X	X			
United Information Service, Inc.	Unimail	P.O. Box 8551 Kansas City, MO 64114	(913) 341-9161	Connie Russell			X		X	X	X	X	X		X

* COST SENSITIVE

ADVOC-NET

			Teleconferencing		Management Systems					Information Systems				Training	System Costs	
Filing/ Storage	Forward- ing	Telex Interface	Electronic Teleconf.	On-line Discussion	Bulletin Board	Calender System	Text/Word Processing	Custom Database Mgmt.	Gateway to Databases	Electronic Publishing	Electronic Library References	Up-to- the- Minute News	Airline/ Travel Guides	Available	Member- ship	Usage
X			X	X	X	X	X	X	X	X	X	X	X	X	X	X
X		X			X		X	X		X	X	X		X	X	X
X	X						X	X						X	X	X

4-B

Appendix B

Cost Analysis Tables (CAT)

Telecommunications Project
ADVOC-NET

Cost Analysis Table

System (Company Name): Automail (ADP Autonet)

Contact Person: Valerie Hawksley Telephone: (313) 769 - 6800

Cost Criteria

1. Time Length Sensitive Yes
2. Amount of data No
3. Command Sensitive No
4. Time of day discount Prime $14/hour; Non prime $10/hour
5. Volume discount No
6. Basic Charge No
7. Minimum Monthly Usage Charge $200/directory
8. Minimum Time Session No
9. Storage/Filing Charge $.0004/2000 characters per day
10. Broadcast Delivery Yes
11. Special Function Charges Mailbox charge of $5/month for each entry into the Automail directory.
12. Optional Printed Full Detail Report
13. Training Charges - On site
    On line Prompting
    Materials User's Guide $17.50, Administrarar's Guide $8.00
14. Equipment Costs No
15. Other Charges: $.07/1000 characters for 120 characters per second terminal speed (both transmitted or received).

Telecommunications Project
ADVOC-NET

Cost Analysis Table

System (Company Name): BearNet (Association for Educational Communications and Technology) Technet after 1-1-84.

Contact Person: Cheryl Garnette Telephone: (202) 466-4780

Cost Criteria

1. Time Length Sensitive No
2. Amount of data No
3. Command Sensitive No
4. Time of day discount Prime ($14/hr.) off Prime time (?$6/hr.)
5. Volume discount No
6. Basic Charge $760 one time fee (includes 40 hours of connect time plus user manual
7. Minimum Monthly Usage Charge No
8. Minimum Time Session No
9. Storage/Filing Charge $8-10/month
10. Broadcast Delivery Yes
11. Special Function Charges No
12. Optional Printed Full Detail Report Available at no charge
13. Training Charges - On site No charges so
    On line - far since
    Materials it's a federally funded project.
14. Equipment Costs No
15. Comments:
    Software used = (California) Stanford University Center via Telenet or Tymnet (70 accounts).
    Note: Project covers all costs for those states involved.

Tele-ommunications Project
ADVOC-NET

Cost Analysis Table

System (Company Name): Comet*(Computer Corporation of America)

Contact Person: Frank Gaderick Telephone: (203) 327-4023

Cost Criteria

1. Time Length Sensitive No
2. ~~Amount~~ of data No
3. Command Sensitive No, sensitive to number of mailboxes
4. Time of day discount No
5. Volume discount No
6. Basic Charge $100
7. Minimum Monthly Usage Charge $60/mailbox (includes 9 hrs. of connect time) or $30/mailbox (4 hr. connect time) With O.T. $8/
8. Minimum Time Session No
9. Storage/Filing Charge No charge for up to 500 messages
10. Broadcast Delivery Yes
11. Special Function Charges None
12. Optional Printed Full Detail Report Yes, available at no charg
13. Training Charges - On site Negotiable if needed on a large scale.
    On line Negotiable if needed on a large scale.
    Materials Quick reference guide at no charge.
14. Equipment Costs *Stand alone system
15. Comments:

Equity license - provide software to run in-house.
Reduce cost.
Minimum number of users.
$40,000 for license.

(Used by AT & T)

Comprehensive User Guide Available for training purposes - for trainers. (Small charge.)

Telecommunications Project
ADVOC-NET

Cost Analysis Table

System (Company Name): CONFER II (Advertel Communications System Inc.)

Contact Person: Robert Parnes Telephone: (313) 665 - 2612

Cost Criteria

1. Time Length Sensitive Yes
2. Amount of data No
3. Command Sensitive Yes (certain Confer procedures are more expensive)
*4. Time of day discount See GTE Telenet for access charges
5. Volume discount 25% discount to qualified non-profit organizations
6. Basic Charge One time $10 project application fee
7. Minimum Monthly Usage Charge $20/project
8. Minimum Time Session No
9. Storage/Filing Charge Yes
10. Broadcast Delivery Through the use of Bulletin Boards
11. Special Function Charges Yes
12. Optional Printed Full Detail Report Yes
13. Training Charges - On site
    On line
    Materials Beginner's Guide to Confer II
    Organizer's Guide to Confer II
14. Equipment Costs No special equipment needed
15. Teleconferencing Service

* Access to Wayne State Computing System also sensitive to time of day.

Telecommunications Project
ADVOC-NET

Cost Analysis Table

System: (Company Name): Connex* (Connex International, The Information Exchange)

Contact Person: Bobbi Heyel Telephone: (800) 243-9430

Cost Criteria

1. Time Length Sensitive Yes
2. ~~Amount~~ of data
3. Command Sensitive No
4. Time of day discount No
5. Volume discount No
6. Basic Charge $10/half hour, plus telephone connect time
7. Minimum Monthly Usage Charge No
8. Minimum Time Session 1/2 hour minimum; 33½¢/minute after first 30 minutes
9. Storage/Filing Charge Will record conference
10. Broadcast Delivery
11. Special Function Charges Other types of conferences available
12. Optional Printed Full Detail Report
13. Training Charges - On site
    On line Orientation session "Connexcall Hotline"
    Materials
14. Equipment Costs *Teleconferencing Service

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Telecommunications Project
ADVOC-NET

Cost Analysis Table

System (Company Name): DECmail (Digital Equipment Corporation)*

Contact Person: John C. Ryan, Jr. Telephone: (614) 863 - 1900

Cost Criteria

1. Time Length Sensitive _____
2. Amount of data _____
3. Command Sensitive _____
4. Time of day discount _____
5. Volume discount _____
6. Basic Charge _____
7. Minimum Monthly Usage Charge Yes
8. Minimum Time Session _____
9. Storage/Filing Charge _____
10. Broadcast Delivery _____
11. Special Function Charges License Fee
12. Optional Printed Full Detail Report _____
13. Training Charges - On site Yes
    On line _____
    Materials Yes

*14. Equipment Costs $47,000 + for stand alone system

Telecommunications Project
ADVO:-NET

Cost Analysis Table

System (Company Name): Dialcom (ITT)

Contact Person: Mark Cruver Telephone: (202) 488-0550

Cost Criteria

1. Time Length Sensitive Yes
2. Amount of data No
3. Command Sensitive No
4. Time of day discount Business ($10.00) Non-prime ($5.00)
5. Volume discount Yes, ($9.00/hour over 250 hours/month)
6. Basic Charge None
7. Minimum Monthly Usage Charge None for government accounts
8. Minimum Time Session Yes, 1 minute
9. Storage/Filing Charge $.40/2048 characters
10. Broadcast Delivery Yes
11. Special Function Charges None
12. Optional Printed Full Detail Report Yes, available at no charge
13. Training Charges - On site $100-$250/day
    On line No
    Materials No
14. Equipment Costs No

Telecommunications Project
ADVOC-NET

Cost Analysis Table

System (Company Name): Edutech (JWK International) See SpecialNet

Contact Person: Susan Elting Telephone: (703) 750-0500

Cost Criteria

1. Time Length Sensitive
2. Amount of data
3. Command Sensitive
4. Time of day discount
5. Volume discount
6. Basic Charge
7. Minimum Monthly Usage Charge
8. Minimum Time Session
9. Storage/Filing Charge
10. Broadcast Delivery
11. Special Function Charges
12. Optional Printed Full Detail Report
13. Training Charges - On site
    On line
    Materials
14. Equipment Costs See SpecialNet

Edu Tech contractor to SpecialNet

Telecommunications Project
ADVOC-NET

Cost Analysis Table

System (Company Name): EDUNET (EDUCOM)

Contact Person: Michael J. D'Amore Telephone: (609) 443-8603

Cost Criteria

1. Time Length Sensitive Yes
2. Amount of data No
3. Command Sensitive No
4. Time of day discount $14.00/hour (business) $7.00/hr. (off-peak) $4.00/hr. (night)
5. Volume discount No
6. Basic Charge $700/annual; $520 Educom Membership
7. Minimum Monthly Usage Charge No
8. Minimum Time Session No
9. Storage/Filing Charge $.007/day/1000 characters after first 5 days
10. Broadcast Delivery $.05/1000 characters/addressee (after first addressee)
11. Special Function Charges No
12. Optional Printed Full Detail Report No charge unless Edunet bills for you at $5/account/month.
13. Training Charges - On site See Telemail
    On line See Telemail
    Materials See Telemail
14. Equipment Costs None

Telecommunications Project
ADVOC-NET

Cost Analysis Table

System (Company Name): ED-NET (Education News and Information Network)

Contact Person: Melly Wainger/Ann Fauley, Ohio Link * Telephone: (703) 528-5840 (614) 891-6466*

Cost Criteria

1. Time Length Sensitive: Yes
2. Amount of data: No
3. Command Sensitive: No
4. Time of day discount: $20.75/hr. prime time; $14.00 non-prime
5. Volume discount: No
6. Basic Charge: $240 first year charge, $90.00 is to Ohio Link, $150 in subsequent years
7. Minimum Monthly Usage Charge: No
8. Minimum Time Session: No
9. Storage/Filing Charge: No
10. Broadcast Delivery: Yes
11. Special Function Charges: No
12. Optional Printed Full Detail Report: Yes
13. Training Charges - On site: No
    On line: Yes*
    Materials: Yes*
14. Equipment Costs: No
15. Comments: The Source *

Telecommunications Project
ADVOC-NET

Cost Analysis Table

System (Company Name): Electronic Information Exchange System (New Jersey Institute of Technology)

Contact Person: Murray Turoff/Anita Graziano Telephone: (201) 645-5503

Cost Criteria

1. Time Length Sensitive — Yes ($8/hour of usage plus telecommunications (individual membership) cost)
2. Amount of data — No
3. Command Sensitive — No
4. Time of day discount — $9.50/hour prime time; other hours at varying rates
5. Volume discount — No (included in organizational membership)
6. Basic Charge — $200/month organizational membership or $75/month individual
7. Minimum Monthly Usage Charge — $10/month/account (the moderator pays $200)
8. Minimum Time Session — No
9. Storage/Filing Charge — $10/month/1000 character
10. Broadcast Delivery — Yes
11. Special Function Charges — Yes
12. Optional Printed Full Detail Report — Yes
13. Training Charges - On site — $25/hour
    On line — No charge except for connect time
    Materials — User Manual with account - no charge, comes with membership.
14. Equipment Costs — No

Telecommunications Project
ADVOC-NET

Cost Analysis Table

System (Company Name): Infomail (BBN)*

Contact Person: Donna Cowan Telephone: (617) 497-2800

Cost Criteria

1. Time Length Sensitive
2. Amount of data
3. Command Sensitive
4. Time of day discount
5. Volume discount
6. Basic Charge $30,000 to $80,000
7. Minimum Monthly Usage Charge
8. Minimum Time Session
9. Storage/Filing Charge
10. Broadcast Delivery
11. Special Function Charges
12. Optional Printed Full Detail Report
13. Training Charges - On site
    On line
    Materials
14. Equipment Costs *Proprietary Software Package available via host (on-site) computer.

Telecommunications Project
ADVOC-NET

Cost Analysis Table

System (Company Name): Mailnet, Project of EDUCOM/EDUNET

Contact Person: Elizabeth Kilcoyne Telephone: (609) 734-1881

Cost Criteria

1. Time Length Sensitive No
2. Amount of data Yes, 25¢/2000 characters (1 page)
3. Command Sensitive No
4. Time of day discount No
5. Volume discount No
6. Basic Charge $520*, plus one time implementation fee of $2000
7. Minimum Monthly Usage Charge $170* (12 month minimum) includes 2 pollings.
8. Minimum Time Session No
9. Storage/Filing Charge No
10. Broadcast Delivery Yes
11. Special Function Charges None
12. Optional Printed Full Detail Report Yes
13. Training Charges - On site No
    On line No
    Materials No
14. Equipment Costs Requires host computer available on-site through institution and a local mail system.

* 50% reduction if membership approved prior to 12-31-83.

Telecommunications Project
ADVOC-NET

Cost Analysis Table

System (Company Name): Infoplex (CompuServe)

Contact Person: Russ Queen/Chester E. Scott Telephone: (614) 224-3113

Cost Criteria

1. Time Length Sensitive No
2. Amount of data Yes 600 characters
3. Command Sensitive Yes
4. Time of day discount No
5. Volume discount Fixed Pilot of $5,000 for unlimited usage for 3 months; port pricing, or, volume discount on retail rates.
6. Basic Charge None
7. Minimum Monthly Usage Charge $500 after first 4 months
8. Minimum Time Session No
9. Storage/Filing Charge After 3 days, $.02 per 600 characters
10. Broadcast Delivery Yes, $.35 per 600 characters
11. Special Function Charges "Compose" command .45¢/600 character message; "Send" 35¢ to each mail box. No charge to receive.
12. Optional Printed Full Detail Report Available at no charge
13. Training Charges - On site Infoplex training day at each branch site on first Thursday of each month at no charge.
    On line ICAT at $40/hour.
    Materials Training manuals $7.50/each.
14. Equipment Costs None.

Telecommunications Project
ADVOC-NET

Cost Analysis Table

System (Company Name): MCI MAIL (MCI)

Contact Person: Marilyn Mouly Telephone: (202) 293 - 4255
(800) MCI - 2255

Cost Criteria

1. Time Length Sensitive No
*2. Amount of data Yes, 7500 character increments
3. Command Sensitive No
4. Time of day discount No
5. Volume discount No
6. Basic Charge Instant Letter, $1.00; MCI Letter, 2.00, Overnight, 6.00; 4-hour 25.00
7. Minimum Monthly Usage Charge No
8. Minimum Time Session No
9. Storage/Filing Charge ~~Yes~~ No
10. Broadcast Delivery Yes,
11. Special Function Charges Yes, letter head and signature
12. Optional Printed Full Detail Report
13. Training Charges - On site No
On line Yes
Materials Yes
14. Equipment Costs No

*Prices based upon first MCI "ounce" equal to 7500 characters (3-5 pages). Each additional "ounce" costs $1.00 regardless of delivery option.

Telecommunications Project
ADVOC-NET

Cost Analysis Table

System (Company Name): MMDF (CSNET) *

Contact Person: Elizabeth Johnson Telephone: (617) 497 - 2777

Cost Criteria

1. Time Length Sensitive
2. Amount of data
3. Command Sensitive
4. Time of day discount
5. Volume discount
** 6. Basic Charge Industrial $30,000/year; Government $10,000/year; University $5,000/year ARPANET users $5,000/year
7. Minimum Monthly Usage Charge Yes, for PhoneNet sites. Pending for CSNET users.
8. Minimum Time Session
9. Storage/Filing Charge
10. Broadcast Delivery
11. Special Function Charges
12. Optional Printed Full Detail Report
13. Training Charges - On site
    On line
    Materials
14. Equipment Costs

* Computer Science Research Network of the National Science Foundation.

** Membership dues to support software maintenance and development and other CSNET operations. Smaller scientific organizations may petition for lower fees.

Telecommunications Project
ADVOC-NET

Cost Analysis Table

System (Company Name): MSGS Bibliographic Retrieval Service (BRS)

Contact Person: Michael Kremin Telephone: (800) 833-4707

Cost Criteria

1. Time Length Sensitive Yes
2. Amount of data Yes
3. Command Sensitive No
4. Time of day discount No
5. Volume discount No
6. Basic Charge $150 Membership Fee
7. Minimum Monthly Usage Charge Yes, $26/month
8. Minimum Time Session No
9. Storage/Filing Charge No
10. Broadcast Delivery No
11. Special Function Charges No
12. Optional Printed Full Detail Report Yes, no charge
13. Training Charges - On site $250/day plus expenses
    On line Yes via 800-customer service number
    Materials Yes user's manual ($18.00)
14. Equipment Costs None

Telecommunications Project
ADVOC-NET

Cost Analysis Table

System (Company Name): Newsnet*

Contact Person: Marilyn Hughes Telephone: (800) 345-1301

Cost Criteria

1. Time Length Sensitive Yes
2. Amount of data No
3. Command Sensitive No
4. Time of day discount Day: $24/hour at 300 baud; $48/hour at 1200 bau
5. Volume discount No
6. Basic Charge No
7. Minimum Monthly Usage Charge $15/month
8. Minimum Time Session No
9. Storage/Filing Charge NA
10. Broadcast Delivery NA
11. Special Function Charges NA
12. Optional Printed Full Detail Report NA
13. Training Charges - On site NA
    On line NA
    Materials NA
14. Equipment Costs Newsletter dissemination service

Telecommunications Project
ADVOC-NET

Cost Analysis Table

System (Company Name): NUTN* (National University Teleconference Network)

Contact Person: E. Marie Oberle Telephone: (405) 624-6606

Cost Criteria

1. Time Length Sensitive _____
2. Amount of data _____
3. Command Sensitive _____
4. Time of day discount _____
5. Volume discount _____
6. Basic Charge $1000 Annual Dues - full members initiation fees $800.
7. Minimum Monthly Usage Charge CONFER Fee $200 (150 for computer time)
8. Minimum Time Session _____
9. Storage/Filing Charge _____
10. Broadcast Delivery _____
11. Special Function Charges $70/year program fee
12. Optional Printed Full Detail Report _____
13. Training Charges - On site _____
    On line _____
    Materials _____
14. Equipment Costs *Teleconferencing Network

Telecommunications Project
ADVOC-NET

Cost Analysis Tabl:

System (Company Name): On-Tyme II*. CLASS

Contact Person: Karen Kelly Telephone: (408) 289-1756

Cost Criteria

1. Time Length Sensitive Yes, $3.00/hour
2. Amount of data Yes, 25¢/1000 characters, input and output
3. Command Sensitive No
4. Time of day discount No
5. Volume discount No
6. Basic Charge $100 annual fee
7. Minimum Monthly Usage Charge No, but $10.00/month billing fee
8. Minimum Time Session 2 minute
9. Storage/Filing Charge 1¢/1000 characters/day
10. Broadcast Delivery Yes
11. Special Function Charges None
12. Optional Printed Full Detail Report Yes
13. Training Charges - On site $50/person/day
    On line None
    Materials 1 free set documentation, $10.00 each additional
14. Equipment Costs None

*Note: On Tyme II is a proprietary system available from Tymshare.

Telecommunications Project
ADVOC-NET

Cost Analysis Table

System (Company Name): ORBIT* (Systems Development Corporation)

Contact Person: _____ Telephone: (800) 421-7229
(213) 820-4111

Cost Criteria

1. Time Length Sensitive Yes
2. Amount of data No
3. Command Sensitive No
4. Time of day discount Yes
5. Volume discount Yes
6. Basic Charge $3500
7. Minimum Monthly Usage Charge $200
8. Minimum Time Session No
9. Storage/Filing Charge No
10. Broadcast Delivery NA
11. Special Function Charges NA
12. Optional Printed Full Detail Report Yes
13. Training Charges - On site $400 plus travel expenses (custom plan)
    On line 800 number -
    Materials Workbook Package $125
14. Equipment Costs *On-line Vendor

Telecommunications Project
ADVOC-NET

Cost Analysis Table

System (Company Name): PARTICIPATE (Participation Systems, Inc.)

Contact Person: David P. Richtmann Telephone: (617) 729-1976

Cost Criteria (See the Source or Dialcom through Telenet or Tymnet; or use PSI)

1. Time Length Sensitive Yes
2. Amount of data
3. Command Sensitive
4. Time of day discount approximately $20/hour (less in the evening and weekend
5. Volume discount
6. Basic Charge
7. Minimum Monthly Usage Charge
8. Minimum Time Session
9. Storage/Filing Charge
10. Broadcast Delivery
*11. Special Function Charges Licenses/Maintenance/Network Building available ($20,000 approximate cost)
12. Optional Printed Full Detail Report
**13. Training Charges - On site $3,000 ($2,000 additional for planning)
On line $3,000 (follow-up facilitation)
Materials
14. Equipment Costs Hardware and software available ($20,000)

*This includes 50% discount to Educational Institutions for the license ($10,000), software maintenance of $1,000/quarter, and network building of up to 4 stages costing up to $10,000.

**Evaluation of pilot $2,000.

Telecommunications Project
ADVOC-NET

Cost Analysis Table

System (Company Name): The Source (Source Telecomputing Corporation)

Contact Person: John Accardo Telephone: (800) 336-3366
(703) 734-7500

Cost Criteria

1. Time Length Sensitive Yes
2. Amount of data No
3. Command Sensitive No
4. Time of day discount 300 baud at $20.75/hour, 1200 baud at $25.75/hou
Evening rates availa
5. Volume discount No
6. Basic Charge $100 (one time registration fee)
7. Minimum Monthly Usage Charge $1.00 Account Maintenance, $9.00 mi
usage
8. Minimum Time Session .25¢ minimum connect fee (for less than 1 min
9. Storage/Filing Charge .50¢ per record/month for first 10 records
10. Broadcast Delivery Yes
11. Special Function Charges Yes
12. Optional Printed Full Detail Report Yes
13. Training Charges - On site Nc
On line Yes
Materials Yes
14. Equipment Costs None

Telecommunications Project
ADVOC-NET

Cost Analysis Table

System (Company Name): Special Net (National Systems Management, Inc.)

Contact Person: Gary Snodgrass/Linda Gibbs Telephone: (202) 822-7933

Cost Criteria

1. Time Length Sensitive Yes
2. Amount of data Yes,1000 characters
3. Command Sensitive No
4. Time of day discount Business hours ($14/hour) Off-Peak ($7/hour) Night hours ($4/hour)
5. Volume discount No (Available for business $10,000/month)
6. Basic Charge $200 annually
7. Minimum Monthly Usage Charge None
8. Minimum Time Session No
9. Storage/Filing Charge $.005/day/1000 characters after 5 days
10. Broadcast Delivery $.05/address
11. Special Function Charges None
12. Optional Printed Full Detail Report Available under Plan II
13. Training Charges - On site $250/day plus expenses
    On line (connect time charges)
    Materials (See below.)*
14. Equipment Costs Plan III includes subscription, prepaid connect charges and portable terminal.
15. Comments
    Built in training program for Special net being developed by IBM. Available by January 1, 1984.

*Materials - Orientation slide presentation with Trainer Guide $200.
Beginning slide presentation with Trainer Guide $100.
[illegible] presentation with Trainer Guide $100.

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Telecommunications Project
ADVOC-NET

Cost Analysis Table

System (Company Name): System 85, A T & T

Contact Person: Renee Levine Telephone: (201) 898-2000

Cost Criteria

1. Time Length Sensitive
2. Amount of data Yes
3. Command Sensitive
4. Time of day discount
5. Volume discount
6. Basic Charge
7. Minimum Monthly Usage Charge
8. Minimum Time Session
9. Storage/Filing Charge
10. Broadcast Delivery
11. Special Function Charges
12. Optional Printed Full Detail Report
13. Training Charges - On site
    On line
    Materials
14. Equipment Costs
15. Proprietary software package on host computers.

Telecommunications Project
ADVOC-NET

Cost Analysis Table

System (Company Name): Telemail (GTE Telenet)

Contact Person: James Walls Telephone: (703) 442-1360

Cost Criteria

1. Time Length Sensitive Yes
2. Amount of data Yes
3. Command Sensitive No
4. Time of day discount Business Hours (14.00/hr.) Off-Peak (7.00/hr.) Night (4.00/hr.)
5. Volume discount (*see below.)
6. Basic Charge $140/month/first three months
7. Minimum Monthly Usage Charge $500/account after three months
8. Minimum Time Session Less than one minute
9. Storage/Filing Charge $.007/1000 characters/day after 5 days.
10. Broadcast Delivery $.05/Address (first addressee free)
11. Special Function Charges None
12. Optional Printed Full Detail Report $100/month (available hard copy or magnetic tape)
13. Training Charges - On site Administrator training - no charge
    On line Compose Trainer at no charge except connect charge
    Materials Training slides at no charge (for one set)
14. Equipment Costs No

*a) resellers arrangement - $3000 in usage before discount of 5%.
- up to 20% for $20,000
- commit to service for 1 year

b) one year agreement - commit to monthly level; $10,000/month to qualify for discount of 5%
price protection given.

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Telecommunications Project
ADVOC-NET

Cost Analysis Table

System (Company Name): Unimail (United Information Services, Inc.)

Contact Person: Connie Russell Telephone: (913) 341-9161

Cost Criteria

1. Time Length Sensitive No
2. Amount of data Yes
3. Command Sensitive No
4. Time of day discount No
5. Volume discount No
6. Basic Charge $200 Initiation of Service Fee
7. Minimum Monthly Usage Charge $300. directory maintenance
   $1.00/user/month.
8. Minimum Time Session No
9. Storage/Filing Charge $.0005/line*/day
10. Broadcast Delivery $.025/line*
11. Special Function Charges Message Preparation $.10/line*, Receiving $.025/line
12. Optional Printed Full Detail Report Yes, available at $12.50/month
13. Training Charges - On site No
    On line Yes
    Materials Yes
14. Equipment Costs None

*line = up to 80 characters.

Appendix C

Telecommunications Project
ADVOC-NET
Software Analysis Matrix

Software Analysis Matrix (SAM)

System (Company Name)	Software (Host) System			
	GTE Telemail	ITT Dialcom	Source	Other
ADP Autonet				Automail
BestNet (AECT) (Technet) 1-1-84*			X *	Contact/EMS Compuserve
Comet (Computer Corp. of America)				COMET
DECmail (Digital)				All-In-1 (VAX)
Dialcom (ITT)		X		
EdLine (NSPRA) CCSO NASBE			X	
EduNet (Educom)	X			
Edutech (JWK)	X			
EIES (New Jersey Institute)				EIES
Infomail (BBN)				Infomail
Infoplex (Compuserve)				Infoplex
Mailnet (Edunet/Educom)	X			
MCI Mail				MCI Mail
MSGS (BRS)				BRS
On-Tyme II (Tymshare) Class				Tymshare
PARTICIPATE (PSI)		X	X	
Special Net (NSMI) NASDSE	X			
System 85 (AT & T)				System 85
Telemail (GTE)	X			
Source (Source Telecomputing Corporation)			X	
Unimail (United States Information Service)				Unimail

ADVOC-NET

Test Site Roster

CONTACT PERSON(S)	TITLE	ORGANIZATION	ADDRESS	TELEPHONE
Barlow, John (Clyde Hetten)	Education Information Center Liaison person for Elwyn Wheat (SD)	Mississippi Dept. of Education	P.O. Box 771 Jackson, MS 39205	(601) 359-3553
Barnhardt, Larry (Jane Schulz)	Supervisor, Special Needs RCU Director for Carroll Burchinal (SD)	North Dakota State Board for Vocational Education	State Capitol Bismarck, North Dakota 58505	(701) 224-3178
Chinnaswamy, Lou	State Liaison Representative SLR for R. Sorenson (SD)	Wisconsin Board of Vocational, Technical, and Adult Education	P.O. Box 7874 4802 Sheboygen Ave., 7th Floor Madison, WI 53707	(608) 266-2222
Cruver, Mark (Jackie Karotsch) (Sue Cournoyer)	Marketing Technical Representative	ITT Dialcom	600 Maryland Ave., S.W. Suite 645 Washington, DC 20024	(202) 488-0550
Lovell, Dr. Mary	Education Research Specialist	U.S. Department of Education Office of Vocational and Adult Education	ROB #3, Room 501B 7th & D Street, S.W. Washington, DC 20202	(202) 245-2617
McKenzie, John (Timothy McLaughlin) (Ed Cory, Chris Olson)	Assistant Coordinator and Liaison for Ed Cory (SLR) and Arnold Loomis (SD)	Michigan Vocational Education Resource Center	133 Erickson Hall Michigan State University E. Lansing, MI 48824	(517) 353-4397
Monthey, Wanda (Phonacelle Shapel)	State Liaison Representative for Monty Multanen(SD)	Oregon Department of Education	700 Pringle Parkway S.E. Salem, OR 97310	(503) 378-2713
Oldsen, Carl (Yvonne Bergland)	Research Specialist	National Center for Research in Vocational Education	1960 Kenny Road Columbus, Ohio 43210	(614) 486-3655 (800) 848-4815
Patterson, Doug	Research Coordination Unit Director for Robert Carta (SD)	Alabama State Department of Vocational Education	State Office Building Room 847 Montgomery, AL 36130	(205) 261-5075
Moire Coleman	Research Coordination Unit Director Liaison person for Arthur Erickson (SD)	Vermont Department of Education	120 State Street State Office Building Montpelier, VT 05602	(802) 828-3101

SD = State Director

CONTACT PERSON(S)	TITLE	ORGANIZATION	ADDRESS	TELEPHONE
Riercks, Donald (Nancy Lennstrom) (Bev Postelwaite)	Director of the Library	Highline Community College	Community College District 9 Midway, Washington 98302	(206) 878-3710
Rudebusch, Merle	Director of Vocational Guidance, Curriculum SLR for Glenn Strain (SD)	Nebraska Department of Education	Box 94987 301 Centennial Mall South Lincoln, NE 68509	(402) 471-4805
Smith, Irene	Community Relations Officer for Frank Santoro (SD)	Rhode Island Dept. of Education	22 Hayes Street Providence, RI 02908	(401) 277-2031
Stivers, Mac	Coordinator for Wm. Pratt (SD)	Kentucky Department of Education	Capital Plaza Tower Frankfort, KY 40601	(502) 564-2890
Struck, Jack (Joyce Barnes)	Executive Director, NASDVE	National Association of State Directors of Vocational Education	200 Lamp Post Lane Camp Hill, PA 17011	(717) 763-1120
Sullivan, Betty Anne	Curriculum Disseminator Coordinator for Martha Pocsi - Director	Northeast Network for Curriculum Coordination	200 Old Matawan Road Old Bridge, NJ 08857	(201) 390-1191
Verloo, Nona (Lisa Stie)	Consultant, Vocational Education for TBN (State Director)	California Dept. of Education	State Education Building 721 Capital Mall Sacramento, CA 95814	(916) 445-0404
Zelenko, Peggy (Ione Phillips)	Manager of Special Publications	American Vocational Assoc.	2020 North 14th Street Arlington, Virginia 22201	(703) 522-6121

Appendix E

ADVOCNET Activity Packages

OSU
The Ohio State University

THE NATIONAL CENTER FOR RESEARCH IN VOCATIONAL EDUCATION

1960 Kenny Road
Columbus, Ohio 43210

Phone: 614—486-3655
Cable: CTVOCEDOSU/Columbus, Ohio

ADVOC-NET PROJECT - Pilot Test

Activity #1 - Signing ON and OFF Dialcom

INSTRUCTIONS: This ADVOC-NET activity package is prepared for use in conjunction with the materials you receive from ITT DIALCOM. Please follow the steps as outlined below. If you encounter any difficulties, please do not hesitate to contact Carl Oldsen or Yvonne Bergland at (800) 848-4815 for assistance.

INTRODUCTION

As a selected test site for ADVOC-NET, you are participating in a nation-wide field-test of electronic mail. At regular intervals, you will receive information and a set of instructional materials from the National Center for Research in Vocational Education (NCRVE). Each set represents an important step in the use of the many features of electronic mail.

As the testing progresses, data will be collected on the use and operation of ADVOC-NET. This information will constitute the basis for design of a state-of-the-art application of electronic mail for vocational and adult education personnel.

ACTIVITY #1

This first activity is designed to teach you how to access the ITT DIALCOM system using your terminal.

1. Carefully read pages 1 to 13 in the Electronic Mail System - User Guide for Beginners. Please pay particular attention to the information concerning your equipment found at the bottom of page 1.
2. Carefully study page 7. Select the access mode that applies to your situation.
3. Fill in the necessary information, the appropriate telephone number, your user ID and password, as provided by NCRVE.
4. After you have completed step 3, sign ON to the computer. Respond to the "mail call" message by typing in MAIL. This will enter you into the mail system.
5. You will receive the prompt of "Send, Read, or Scan:"
6. Answer by typing in the word READ. You will be presented with a header containing TO, FROM and SUBJECT, etc. Type the word MORE to see the message from NCRVE.

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7. After you have read the message, the prompt, "disposition" will appear. Type DELETE.
8. Type "QUIT" to exit the Mail system.
9. Sign off the system by typing OFF to log off the computer. Be sure to hang up the telephone to completely disconnect.
10. Proceed to Activity #2 when received from NCRVE.

/jlh

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OSU The Ohio State University

THE NATIONAL CENTER FOR RESEARCH IN VOCATIONAL EDUCATION

1960 Kenny Road
Columbus, Ohio 43210

Phone: 614-486-3655
Cable: CTVOCEDOSU/Columbus, Ohio

ADVOC-NET PROJECT - Pilot Test

Activity #2 - Display DIRECTORY and SENDING a Message

INSTRUCTIONS

This ADVOC-NET activity package is prepared for use in conjunction with the Electronic Mail System - User Guide for Beginners received from ITT DIALCOM. Please follow the steps as outlined below to learn how to display the directory and send a message.

INTRODUCTION

The Master Mail Directory is a listing of all the ADVOC-NET Pilot test participants. This textfile has been established for communication among this network of people. Use of this directory permits you to send messages to other participants without having to memorize ID numbers. Each line in the directory contains the name, ID number followed by other pertinent information.

ACTIVITY #2

This second activity is designed to teach you how to access the ADVOC-NET directory and then send a message using your terminal.

1. Carefully read pages 14-18 in the Electronic Mail System - User Guide for Beginners.

2. Sign ON to the system following the steps as previously described in Activity #1.

3. Respond to the "mail call" message by typing in MAIL. This will enter you into the mail system.

4. You will receive the prompt of "Send, Read, or Scan:"

5. Answer by typing in the words DISPLAY DIR. Locate the mailbox number (ID number) for C. Oldsen and enter it here: _____

6. You will again receive the prompt of "Send, Read, or Scan:"

7. Answer by typing in the word SEND. To send a message the Mail System will present several prompts that will enable you to "mail" the message.

8. Respond the prompt "TO:" by entering in C. Oldsen's mail box number.

9. Respond to the prompt "SUBJECT:" by typing in "ADVOC-NET Pilot Test, Activity #2".

10. Respond to the prompt "TEXT:" by typing in the following message:

> Upon receipt of this message, you will know that _____(insert your name and state here) has completed Activity #2 of the ADVOC-NET project. ITT Dialcom is electronic mail provides communication capabilities ranging from keyboard conversation, to sending, receiving and filing electronic messages, to postings on an electronic bulletin board. The speed of electronic mail results in dramatic increases in productivity of the user. Features include date activation, message forwarding, electronic filing and express priority and confidentiality.

11. After you have finished typing the Text, you must type ".SEND" on a line by itself.

12. You will receive verification of: C. Oldsen -- Sent.

13. This ends a simple send transaction.

14. Type "QUIT" to exit the mail system.

15. Sign off the system by typing OFF to log off the computer. Be sure to hang up the telephone to completely disconnect.

16. Proceed to Activity #3 when received from NCRVE.

OSU

The Ohio State University

THE NATIONAL CENTER FOR RESEARCH IN VOCATIONAL EDUCATION

1960 Kenny Road
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Phone: 614-486-3655
Cable: CTVOCEDOSU/Columbus, Ohio

ADVOC-NET PROJECT - Pilot Test

Activity #3 Changing Your Password

INSTRUCTIONS: This ADVOC-NET activity package is prepared for use in conjunction with the materials you have received from ITT DIALCOM. Please follow the steps as outlined below. If you encounter any difficulties, please contact Carl Oldsen or Yvonne Bergland at (800) 848-4815 for assistance. You can also obtain assistance by typing in HELP on your terminal. The system is programmed with a tutorial message to aid you.

INTRODUCTION

The password is an important security element built into Dialcom's electronic mail system. It is the key to your account, so it must be treated seriously. Before you can begin a session, you must enter your user ID and assigned password. To afford your greater protection against unauthorized access to your mail, Dialcom recommends that users periodically change their ID passwords.

ACTIVITY #3

This activity is designed to teach you how to change your password to ensure security and confidentiality.

1. Sign on to the system as previously described in Activity #1.
2. At the prompt >, type in the command PASSWD.
3. The system will respond with "Old password:" Enter the password you were assigned, CAT.
4. You will then receive the prompt "Enter new password:"
5. The following restrictions should be considered when choosing a new password:
   a) The password should not exceed 16 characters.
   b) A non-printing password (hold down CTRL key) should NOT contain digits or non-alphabetic characters.
   c) It is recommended that passwords be wholly or in part non-printing (requiring the CTRL key) and be at least 3 characters.

d) The following characters cannot be used when CTRL is used: S H L O M P Q

6. Decide upon your new password and type it after the prompt, "Enter new password:"

7. The system will respond "Enter it again:" Use the CTRL key again if you chose a non-printing password.

8. You will then receive the prompt, "DONE". This signifies that your password has been changed.

9. Review the enclosed xeroxed copy of page 146 from DIALCOM for further information.

10. Enter the mail system following the procedure outlined in Activity #2.

11. Please send the following message to C. Oldsen and Y. Bergland using their proper names as they appear in the AVOC-NET directory, not their mail box numbers.

A file has been created which allows you to type ALLAVO at the "TO" prompt and transmit one message to all Vocational Education. If you want to see this list, type the following:

> MAIL DIS REF (return)

If you want to see the entire Master Directory for Vocational Education, please type the following:

> MAIL DIS DIR (return)

Let us know if you have any questions. Have a great day!!!

_____ (Type in your name).

12. SEND the message

13. You will receive verification of:

C. Oldsen--Sent
Y. Bergland--Sent

14. Exit the mail system and sign off the computer.

15. Proceed to Activity #4 when received from NCRVE. Thank you.

Protecting your User ID - The >PASSWD commands

The >PASSWD command

Users should periodically change their ID passwords to ensure the security and confidentiality of their UserIDs. This is done by the >PASSWD command. The following restrictions apply to passwords:

1) The password should not exceed 16 characters.

2) A non-printing password should not contain DIGITS or non-alphabetic characters.

3) It is recommended that passwords be wholly or in part non-printing (requiring the CTRL key) and be at least 3 characters.

4) The following CTRL characters CANNOT be used: S H L O M P Q

NOTE: Certain terminals may restrict the usage of additional letters in the passwords. See your operating manual for information.

Example - Changing the Password of a User ID

```
>PASSWD

Enter new password: DXAY      <-----Use CTRL key if non-printing

Enter it again: DXAY          <-----Use CTRL key again if non-printing

Done.

>
```

If the password is entered incorrectly the second time, it has not been changed and the original password remains.

At times, a user may change his password and forget what the new password is. In situations like this, the System Manager must invoke the >PASSWD command and re-issue the user a password. It is not possible to ascertain existing passwords of User IDs.

The >PASSWD -LONG command may be used to create NON-OWNER or OWNER rights to your UserID. Contact your System Manager for details, should you wish to use this feature to permit other users to access certain files on your ID as an owner or non-owner.

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ADVOC-NET PROJECT - Pilot Test

Activity #4 Scanning Mail

INSTRUCTIONS: This ADVOC-NET activity package is prepared for use in conjunction with materials previously received from ITT DIALCOM and the National Center for Research in Vocational Education. Please follow the steps outlined below to become familiar with the SCAN command. If you encounter any difficulties, please contact Carl Oldsen or Yvonne Bergland at (800) 848-4815 or Jackie Karotsch, Dialcom Marketing Support Representative at (202) 488-0550. The command HELP will also give you assistance in the form of a tutorial message.

INTRODUCTION

Using the SCAN command allows you to review the mail currently in your mailbox. Two header lines display the subject and sender. The command QSCAN displays a condensed one line item.

Several other options exist for the SCAN command which permits perusal of various types of mail:

1. SCAN UNREAD - current mail, only unread items
2. SCAN READ - current mail, only previously read items
3. SCAN FILE - filed mail, all items in the file you created

ACTIVITY #4

This activity is designed to illustrate the use of the SCAN command of the mail system.

1. Sign on to the system as previously described in Activity #1.
2. Carefully read pages 23-25 of the User Guide.
3. At the prompt >, type the command MAIL.
4. The system will respond with "Send, Read, or Scan:" Enter Scan.

5. After reviewing your mail, answer the prompt "Read or Scan:" by typing in QSCAN to see how the system displays the condensed version of your mail.

6. The system will again prompt you with "Read or Scan:", respond with READ ALL. This command will enable you to read all scanned items without any further prompts.

7. At the prompt "Read or Scan:", type QUIT.

8. The system will respond with > . Type OFF.

9. Proceed to Activity #5 when received from NCRVE. Thank you.

/jd

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ADVOC-NET Project - Pilot Test

Activity #5 Send Options

INSTRUCTIONS: This fifth ADVOC-NET activity package is prepared for use in conjunction with the Dialcom materials received at the beginning of the pilot test. Please follow the steps as outlined below. If you encounter any difficulties please do not hesitate to contact Carl Oldsen or Yvonne Bergland at (800)848-4815 for assistance.

INTRODUCTION

Activity #2 was designed to teach you how to access the ADVOC-NET directory and then send a message using your terminal. Dialcom's Mail System has many options available that can enhance your sending capabilities.

ACTIVITY # 5

This activity is designed to give you practice using some of the special options when sending messages. These options are available at "TO:" and at "TEXT" modes.

1. Carefully read pages 14-18 in the Electronic Mail System - User Guide for Beginners.
2. Sign ON to the system following the steps described in Activity #1.
3. Enter the MAIL SYSTEM by typing MAIL after the prompt >.
4. At the prompt "Send, Read, or Scan:", type "Send".
5. The first options are used following the prompt "TO:" and BEFORE the name(s) to which they apply.
6. Please send the following message TO: C. Oldsen CC Y. Bergland. Type "Courtesy Copy" when prompted "SUBJECT:".

7. At the next prompt, "TEXT:", type the following message:

   Upon receipt of this message, you will know that _____(insert your name and state here) has received Activity #5 of the ADVOC-NET project. I have completed the "courtesy copy" option.

8. Type .SEND on a line by itself. You will receive verification of the transaction.

9. At the prompt "Send, Read, or Scan:", type "Send".

10. Please send the following message TO: AR C. Oldsen, CC Y. Bergland. Type "Acknowledgement Requested" at the "SUBJECT" prompt.

11. At the "text" prompt, type the following message:

    _____(insert your name and state) has completed the "acknowledgement requested" option.

12. Type .SEND on a line by itself. You will receive verification of the transaction as described on page 16 under the option AR.

13. At the prompt "Send, Read, or Scan:" type "Send:".

14. Please send the following message TO: EX C. Oldsen, Y. Bergland and yourself. Type the word "EXPRESS" at the "SUBJECT" prompt.

15. At the "text" prompt, type the following message:

    This message was sent via the Express mode. The mail call message will specify that Express items are waiting to be read.
    _____(insert your name)

16. Type .SEND on a line by itself. You will receive verification of the transaction.

17. The options described above can also be used in the "text" mode. However, the commands must be preceded by a DOT (.) and be the only information typed on the line.

18. Study the information on pages 16-18 and practice sending the following messages:

a) TO: C. Oldsen
SUBJECT: ADVOC-NET #1
TEXT: This message is sent to illustrate the use of the special option "CC" within the text mode. _____(insert your name).

.CC Y. Bergland
.SEND

b) TO: C. Oldsen Y. Bergland
SUBJECT: ADVOC-NET #2
TEXT: This message is sent to illustrate the use of the special options "EX" and "AR" within the text mode. _____(insert your name).

.AR C. Oldsen
.EX Y. Bergland
.SEND

c) TO: C. Oldsen
SUBJECT: Use of Display and Spell Features
TEXT: This mesage is designed with some spelling errors so you can see how the system operates in the dictionary mode. The display option will show you the corrected text after corrections are executed. Page 18 of the User Guide ilustrates the use of these options.

.CC Y. Bergland
.AR C. Oldsen
.SP (do corrections as indicated)
.DISPLAY
.SEND

19. Type "QUIT" to exit the mail system.

20. Sign off the system by typing "OFF".

21. Proceed to Activity #6 when received from NCRVE.

22. The next time you sign on the system you will see that there is an Express (as per #14) item waiting to be read. Use the command MAIL READ EXPRESS to target this specific item.

/jd

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ADVOC-NET Project - Pilot Test

Activity #6 Disposition of Mail

INSTRUCTIONS: This ADVOC-NET activity package is prepared for use in conjunction with the Electronic Mail System - User Guide for Beginners received from ITT Dialcom. Please follow the steps as outlined below. If you encounter any difficulties, please contact Carl Oldsen or Yvonne Bergland at (800) 848-4815 for assistance. You can also obtain assistance by typing in HELP on your terminal. The system is programmed with a tutorial message to aid you.

INTRODUCTION

Upon receipt of a message, Dialcom has provided a number of options to further process or dispose of the communication. These include:

* REPLY to the sender
* FORWARD the message
* FILE the message
* Leave the message in your mailbox
* DELETE the message

ACTIVITY #6

This sixth ADVOC-NET activity is designed to illustrate the use of several methods to further process or dispose of messages you receive in your mailbox.

1. As a review, please read the following pages in the User Guide:
   a) page 17: information on .FILE
   b) page 20-22: options at "--more--" and "disposition"
2. Sign ON to the system following the steps as previously described in Activity #1.
3. Enter the mail system by typing in MAIL at the prompt).

4. When prompted by the system, ask to READ your mail. We have sent you several messages to work with during this activity. These are labelled "Activity #6, Message 1 to 4."

5. At the prompt "--more--", read the first message by hitting the return or typing in YES.

6. After reading the message, the prompt "disposition" will appear. Type the word DELETE or D to remove the message from your mailbox.

7. Again, the prompt "--more--" will appear. Respond by typing YES.

8. After you have read the message, and received the prompt "disposition", type FILE. This command has placed the message in your general (uncategorized) message file.

9. After the prompt "disposition", respond with "NEXT". A header will appear. At "--more--", type "YES".

10. After reading the message, reply as indicated by typing the word REPLY when prompted with "disposition". You will receive the prompt "TEXT". Type your message and when done, type .SEND on a line by itself.

11. Answer "NEXT" to the prompt "disposition". At the prompt "--more--", type "YES".

12. After reading the message, use the FORWARD option to send the following message to C. Oldsen. At the prompt, "disposition", type FORWARD C. Oldsen. After receiving the prompt "comments:", type:

    This message was received by _____(insert your name) and is being forwarded as requested.

    .SEND

13. At the next "disposition" prompt, type QUIT to exit the mail system.

14. Prior to signing off the system, you may want to retrieve the item filed during this activity by re-entering the mail system and return the prompt "Send, Read, or Scan" with READ FILE.

15. Sign off the system....Thank you for participation in the ADVOC-NET field test. We will be contacting you shortly with an evaluation.

/jd

Appendix F

ADVOCNET Conference Calls

ADVOC-NET Teleconference, 2-8-84

On February 8, 1984, the ADVOC-NET project had its first teleconference call to acquaint the test site participants with the schedule of events planned for the field test phase. Of the twelve organizations selected for the pilot, all participated in the conference call with the exception of the Nebraska and Rhose Island Departments of Education.

Carl Oldsen, Research Specialist and ADVOC-NET project director moderated the thirty minute conference call coordinated by CONNEX International. After a review of the project background and timelines, a Dialcom briefing and future schedule of events, the conference was opened to the participants for a question and answer period.

John McKenzie, Assistant Coordinator of the Michigan Vocational Education Resource Center requested further information concerning the basic services offered by Dialcom. Mr. Oldsen outlined the bulletin board, electronic mail, and information transfer features.

Nona Verloo, Vocational Education Consultant of the California Department of Education inquired into the message storage function and also asked about the pilot test procedures. Mr. Oldsen responded that Dialcom has a variety of message retention options ranging from storage to the ability to print it. He briefly described the framework of the pilot testing which will include structured electronic mail functions to be carried out by each participant.

Jack Struck, Executive Director of the National Association of State Directors of Vocational Education requested information concerning the disposition of test results. Mr. Oldsen answered that the data will be used to identify communication needs and eventually implement procedures to bring these features into a network for use by federal, state, and local vocational and adult education personnel.

Dr. Mary Lovell, Education Research Specialist with the U.S. Department of Education asked about access to database which is available through Dialcom's "Gateway to databases."

Larry Barnhardt, Supervisor, Special Needs, North Dakota State Board for Vocational Education questioned the affect of using Dialcom on RIVE, VECM, and other databases. He was assured that access could be gained through Dialcom. Mr. Barnhardt also inquired about the fee structure used by Dialcom. Mr. Oldsen explained that no monthly minimum is charged by Dialcom. For the pilot testing, participants will not be charged for use of DIALCOM. Procedures have been developed so that these costs will be billed to the ADVOC-NET project.

Both Nona Verloo and John McKenzie voiced appreciation to the Office of Vocational and Adult Education (OVAE) for supporting the ADVOC-NET project.

Several of the participants added contact persons to the test site roster. Mr. Oldsen announced that the next teleconference is scheduled in 2 to 3 weeks time. Representatives from Dialcom will participate to answer technical questions. Test sites will receive instructional materials, a directory of users, mail box number, user ID within the next ten days. The revised test site roster will be included.

Mr. Oldsen thanked the test site participants for their input, and if any further information about the electronic telecommunications system is needed, the test sites were encouraged to contact him.

ADVOC-NET Teleconference, 2-29-84

On February 29, 1984, the ADVOC-NET project held its second teleconference for the fourteen sites involved in the pilot test. Rhode Island and AVA were unable to participate.

Carl Oldsen again moderated the thirty minute conference call coordinated by CONNEX. Mr. Oldsen introduced the four new test sites: John Barlow, Mississippi Department of Education; Lou Chinnaswamy, Wisconsin Board of Vocational, Technical, and Adult Education; Doug Patterson, Alabama State Department of Vocational Education; and, Mary Perry, Vermont Department of Education. Also joining the teleconference was Jackie Karotsch, Dialcom Marketing Support Representative. She enumerated the materials sent to the test sites for use during the pilot: Electronic Mail User Guide for Beginners, Reference cards A & B, Directory of ADVOC-NET users, and copies of system level commands and equipment parameters. Several sites stated that they had not yet received their materials. If they have not received them by Friday, they were instructed to contact Jackie.

Mr. Oldsen reviewed project activ ty no. one, stressing the importance of reading the documentation carefully. He directed the participants attention to directory so they could obtain their user ID which consists of the letters AVO followed by four unique numbers. He explained that everyone's password is CAT. Sites will be instructed on how to change this later for higher level security.

Jackie gave the participants the addresses needed to access DIALCOM through: (1) Telenet, C 301 363; (2) Tymnet, Dialcom; 63 and, (3) Uninet, carriage return, D63, carriage return. Jackie answered several equipment questions and gave her telephone number

(202) 488-0550 to call if the sites encountered any difficulties. She also explained that the system will transmit tutorial message with the prompt HELP. The system has also been programmed to respond to JACKI by sending her a message from the user who is encountering difficulties by typing out the problem and at the end of the text use the command .SEND. She urged sites to check their mailboxes two to three times per week and practice with beginners' mail as often as possible.

Yvonne Bergland reviewed activity no. two, explaining that this lesson will be forwarded to each site shortly. The second activity is designed to teach the sites how to access the directory, and then send a message.

Mr. Oldsen thanked the sites for their participation at the conclusion of the teleconference.

Yvonne Bergland
Recorder

ADVOC-NET Teleconference, 3-14-84

The ADVOC-NET project held a teleconference on March 14, 1984 for the participants in the pilot test. Mississippi, North Dakota, Vermont, Rhode Island and AVA did not answer the roll call.

Carl Oldsen, moderator welcomed the test sites to the third conference call and introduced Sharon Appleton, the Dialcom Marketing Support representative. The conference was opened to a question period. Several of the sites expressed concern over not being able to sign onto the system. Ms. Appleton explained that Dialcom is currently changing part of the access software requiring that all users' passwords must be a minimum of four (4) characters. She assigned those sites experiencing a problem new passwords and then explained how to change it using the command PASSWD. She urged the sites to change their passwords as soon as possible for security sake. It was also explained that the systems manager, Mr. Oldsen, has the ability to assign a temporary password should anyone forget their current one.

Mr. Oldsen explained the use of the ALLAVO command to send a message to all test site participants through this new file created by Dialcom.

Yvonne Bergland reported on the three activity packages prepared and sent to the sites: (1) signing on and off the system; (2) displaying the directory and sending a message; and (3) changing the password. Three additional instructional activities are presently being designed and will cover the subjects of scanning mail, desposition of mail, and send options. Ms. Bergland explained that these remaining materials will be transmitted to the test sites using the electronic mail system and urged the participants to watch their mailboxes for activity number four by the end of March.

Mr. Oldsen thanked the sites for their input and announced that the next conference is scheduled for April 4, 1984. Using the teleconference as an adjunct to the electronic mail project has proved to be a positive experience in promoting interest and enthusiam for ADVOC-NET. Test sites continue to express their affirmative endorsement of the Dialcom system and this being conveyed to OVAE through their participation.

ADVOC-NET Teleconference, 4-11-84

On April 11, 1984, the ADVOC-NET project held its fourth teleconference for the participants in the pilot test. North Dakota, Wisconsin, Oregon, Nebraska, and AVA were unable to participate.

Carl Oldsen, the moderator, welcomed the test sites and thanked them for their participation in the project to date. He reviewed the agenda and then described a recent trip to Dialcom headquarters in Washington, D.C. where he received intensive training of the electronic mail system.

Mr. Oldsen updated the Dialcom field test. He commented on the number of sites involved and reported on the acknowledgement of activities four through six.

Yvonne Bergland responded to several questions concerning activities 4, 5, and 6. These included queries about the password, use of AVO numbers rather than names and the acknowledgement function.

The test-sites requested an exercise on the edit function. They were encouraged to practice sending messages using the various commands described in the six activities.

Mr. Oldsen briefly outlined a proposed schedule of events following the conclusion of the field test. After a briefing with OVAE, it is hoped that the ADVOC-NET communication network would be expanded to include the remaining State Departments of Vocational Education, Research Coordinating Units, and State Liaison Representatives, and other vocational education agencies (NOICCS and SOICCS). The currently used CBMS will eventually be phased out. As new participants are introduced to the system, their names will be added to the directory and the ADVOC-NET activities forwarded to them.

It was recommended by Don Riecks that the six activities be stored on-line for use by present and future participants.

Mr. Oldsen clarified the price structure used by Dialcom and explained the registration/fee negotiations. He stated that promotional materials are presently being prepared and will be disseminated by the middle of May.

Jackie Karotsch urged the test-sites to begin incorporating Dialcom into their daily work routine. She outlined several of the benefits offered by the system. Further expanded documentation will be forwarded to all sites that will enable them to perform more sophisticated electronic mail functions. Jackie answered a few technical questions concerning the non-receipt of messages and the use of express and acknowledgement requested commands.

Mr. Oldsen thanked the sites for their participation and ended the teleconference at 2:30 p.m.

ADVOCNET Teleconference 5/16/84

On May 16, 1984, the ADVOCNET project had its final teleconference for the participants in the pilot test. J. Barlow, D. Riecks, M. Rudebusch, M. Stivers, J. Sturch (Joyce Barnes), and B. Sullivan answered the CONNEX roll call.

Carl Oldsen, ADVOCNET project director, moderated the twenty minute conference call. After welcoming the participants, Mr. Oldsen presented some preliminary usage data for the month of March, 1984.

Yvonne Bergland then reported that two advanced activity packages were currently being prepared and would be transmitted to the sites next week. The packages feature the text editor function. One deals with the editing mode accessed through the mail system and the other approaches it from the system level command of <ED. She explained that the second activity also contains a short exercise on creating an external file.

Mr. Oldsen described a recent briefing with Dr. Worthington in Washington, D.C. concerning OVAE's endorsement of ADVOCNET and the Dialcom system. He explained that Dr. Worthington will be sending a letter to all state departments of adult and vocational education urging membership in ADVOCNET since it has been designated the telecommunications network of choice for use by OVAE.

Mr. Oldsen briefly outlined the ADVOCNET external marketing plan that will include approximately 25 adult and vocational education groups. He described the promotional materials being prepared and stated that the National Center for Research in Vocational Education (NCRVE) has been named "Systems Manager" by OVAE.

Mr. Oldsen then reviewed the cost of the system explaining the special rate offered ADVOCNET users because of the federal government connection.

The conference was opened to a question period where the following items were clarified:

- A copy of Dr. Worthington's letter will be forwarded to each of the test sites.
- Test sites can continue using the system until the end of May, 1984.
- Sign-up of new members will commense June 1, 1984.
- A new directory will be created for ADVOCNET and maintained by NCRVE.
- There is no monthly minimum fee for government accounts. Each state will be evaluated on an individual basis as to eligibility.
- Dialcom posses a "gateway" to databases and BRS can be accessed.

Mr. Oldsen thanked the sites for their input and assistance during the pilot test. He stated that OVAE's endorsement of the system was due, in part, to the positive input and participation by the sites. There being no further business, the conference was concluded at 2:20 EDT.

Yvonne Bergland

ADVOCNET

FIELD TEST SITES DIRECTORY

THROUGH

MAY 31, 1984

OLDSEN	AV00001		800-848-4815	NCRVE
Y.BERGLAND	AV00002			
TAYLOR	AV00003			
HANSEN	AV00004			
S.GYURO	AV00005			
J.MILLER	AV00006			
BUDKE	AV00007			
WAGNER	AV00008			
J.MAGISOS	AV00009			
WORTHINGTON	AV00075	US	202-245-8166	OVAE
WU	AV00076	US	202-245-2555	OVAE
M.LOVELL	AV00077	US	202-245-2617	OVAE
LONG	AV00078	US	202-245-3478	OVAE
BENNION	AV00079	US	202-472-3400	OVAE
SNODGRASS	AV00080	US	202-245-9733	OVAE
P.WILKINS	AV00081	US	202-245-2617	OVAE
ANDERSON	AV00082	US	202-245-2617	OVAE
HJELM	AV00083	US	202-245-2277	OVAE
G.BOERRIGTER	AV00084	US	202-245-2617	OVAE
DELKER	AV00085		202-245-9733	OVAE
CORNELSON	AV00086		202-472-3440	OVAE
BUZZEL	AV00087		202-245-8190	OVAE
J.BARLOW	AV00100	MS	601-359-3553	
HATTEN	AV00101	MS	601-359-3553	
WHEAT	AV00102	MS	601-354-6980	
L.BARNHARDT	AV00103	ND	701-224-3178	
SCHULZ	AV00104	ND	701-224-5847	
BARCHINAL	AV00105	ND	701-224-2259	
CHINNASWAMY	AV00106	WI	608-266-2222	
E.ERENSON	AV00107	WI	608-266-1770	
MCKENZIE	AV00108	MI	517-353-4397	
MCLAUGHLIN	AV00109	MI	517-353-4397	
E.COBY	AV00110	MI	517-373-0402	
LOOMIS	AV00111	MI	517-373-3373	
MONTHEY	AV00112	OR	503-378-2713	
P.SHAPEL	AV00113	OR	503-378-2713	
M.MULTANEN	AV00114	OR	503-378-3584	
PATTERSON	AV00115	AL	205-261-5075	
R.CARTER	AV00116	AL	205-832-3364	
M.COLEMAN	AV00117	VT	802-828-3124	
A.ERICSON	AV00118	VT	802-828-3101	
RIECKS	AV00119	WA	206-878-3710	
N.LENNSTROM	AV00120	WA	206-878-3710	
B.POSTELWAITE	AV00121	WA	206-753-5651	
RUDEBUSCH	AV00122	NE	402-471-4805	
G.STRAIN	AV00123	NE	402-471-2435	
I.SMITH	AV00124	RI	401-277-2031	
F.SANTORO	AV00125	RI	401-277-2691	
M.STIVERS	AV00126	KY	502-564-2890	
W.PRATT	AV00127	KY	502-564-4286	
J.STRUCK	AV00128	DD	717-763-1120	NASDVE
J.BARNES	AV00129	DD	717-763-1120	NASDVE
B.SULLIVAN	AV00130	CC	201-390-1191	
N.VERLOO	AV00131	CA	916-455-0404	
L.STIE	AV00132	CA	916-455-0404	
P.ZELENKO	AV00133	AV	703-522-6121	AVA
I.PHILLIPS	AV00134	AV	703-522-6121	AVA
G.BOTTOMS	AV00135	AV	703-522-6121	AVA
C.OLSON	AV00136	MI	517-353-4397	
J.ROTH	AV00137	AL	205-261-5075	
J.KAROTSCH	98:JACKIE		202-488-0550	ITT DIALCOM-SUPPORT
S.COURNOYER	98:SUSAN		202-488-0550	ITT DIALCOM-SUPPORT
M.CRUVER	98:MARKC	97	202-488-0550	ITT DIALCOM-SALES

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